NE 85th Street Station Area Plan

May 31, 2022



Acknowledgments

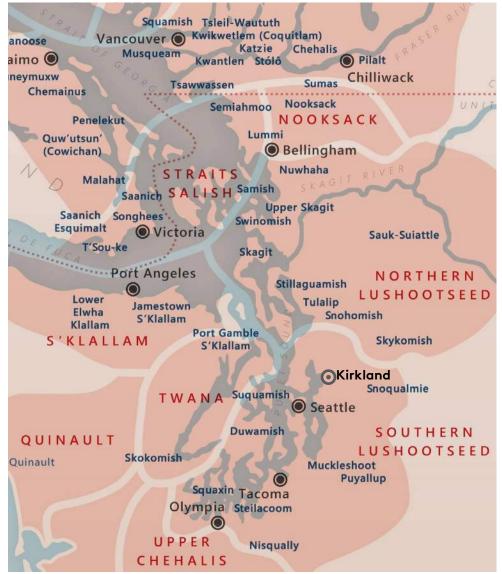


Image Source: LandLines Map, Burke Museum, USGS Topographic Map; Seattle quadrangle, 1906

Land Acknowledgment

We acknowledge that the Southern Salish Sea region lies on the unceded and ancestral land of the Coast Salish peoples, the Duwamish, Muckleshoot, Puyallup, Skykomish, Snoqualmie, Snohomish, Suquamish and Tulalip tribes and other tribes of the Puget Sound Salish people, and that present-day City of Kirkland is in the traditional heartland of the Lake People and the River People. We honor with gratitude the land itself, the First People – who have reserved treaty rights and continue to live here since time immemorial – and their ancestral heritage.

Source: City of Kirkland adopted land acknowledgment language.

City of Kirkland

City Manager's Office

- Kurt Triplett
- Tracey Dunlap
- Jim Lopez
- David Wolbrecht

Planning and Building Department

- Adam Weinstein
- Jeremy McMahan
- Allison Zike
- Jon Regala
- Janice Swenson
- David Barnes
- Scott Guter
- Shaylyn Reed

Public Works Department

- Joel Pfundt
- Victoria Kovacs
- Rochelle Starrett
- Thang Nguyen
- Kelli Jones
- Rachel Konrrdady
- Josh Pantzke
- John Burkhalter

Parks and Community Services

- Mary Gardocki
- Lynn Zwaagstra

Finance

- George Dugdale
- Kevin Pelstring

Consultant Team

- Mithun
- BERK
- BUSS
- **ECONorthwest**
- Fehr and Peers
- Herrera
- Rushing
- Habile

Public Agency Stakeholders

- Lake Washington School District
- Sound Transit
- Washington Department of Transportation
- King County Housing Authority

City Council

- Penny Sweet, Mayor
- Jay Arnold, Deputy Mayor
- Neal Black
- Kelli Curtis
- Amy Falcone
- Toby Nixon
- Jon Pascal

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- Scott Reusser, Vice Chair
- Katya Allen
- Carter Bagg (term expired March 2022)
- Bria Heiser (term began April 2022)
- Rodney Rutherford
- Sandeep Singhal
- John M. Tymczyszyn

Transportation Commission

- Kurt Ahrensfeld, Chair
- Faith DeBolt, Vicde-Chair
- AJ Antrim
- Shreedhaarini Balamurugan, Youth Member (appointed April 2022)
- Rafael Fernandez
- Brian Magee
- Michelle Quinton
- Patrick Vu (appointed April 2022)
- Lisa McConnell (served through MarchX, 2022)
- Hayden Goldberg, Youth Member (served through December 2021)
- Brad Haverstein (served through July 2021)
- Douglas Jacobson (served through May 2021)
- Terry Marpert (served through May 2021)

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How To Use This Plan

The NE 85th Station Area Plan (SAP) is an effort led by the City of Kirkland to take a comprehensive look at how the area may evolve within an approximately 1/2-mile radius of the future Stride Bus Rapid Transit (BRT) station planned by Sound Transit and new WSDOT I-405 interchange at NE 85th Street. The SAP outlines the overall vision as a vibrant, mixed-use environment and a model of innovation with plentiful affordable housing and a mix of both high tech and family wage jobs linked by transit.

Community members, elected officials, and City staff should look to this long-range Station Area Plan as a guide to the area overall vision and goals, recommended public projects and services as well as future opportunities, and for additional detail surrounding the Preferred Plan direction which establishes growth targets and was included in the Final Supplemental Environmental Impact Statement (FSEIS) published in December 2021. The city will use the SAP and its appendices to inform,

guide, and coordinate implementing policies and plans including:

- A Station Area Chapter of the Comprehensive Plan to establish goals and policies for future growth. This chapter will be an overlay that addresses the Station Area relationships to existing Neighborhood Plans for Everest, Highlands, Moss Bay, Norkirk, North Rose Hill, and South Rose Hill.
- A new Form-Based Code chapter in the Zoning Code
- Parcel Rezones
- Design Guidelines
- Help inform and coordinate with other ongoing, citywide planning efforts such as the capital facilities plan
- Identify opportunity areas for further exploration

The overall structure of this SAP begins with an executive summary, an overview of the vision, a history of the planning processes, and then provides detail

into each of the key plan elements including Land Use, Open Space and Environment, Transportation and Mobility, Utilities and Public Services. Each plan element describes recommendations and goals, including supporting technical guidance in the form of zoning or other regulatory changes, design guidelines, and implementation strategies. This plan will guide where new jobs and homes will go and their relative density and form. The plan also describes where transportation network connections can be added or enhanced.

The SAP is closely related to other key strategic planning initiatives within the City of Kirkland. These include:

- A periodic update to the Comprehensive Plan (to be adopted 2024)
- Ongoing Park, Recreation and Open Space (PROS) Plan update (anticipated 2022)
- Sustainability Master Plan (Adopted 2020)
- Ongoing Active Transportation Plan (ATP) update (to be adopted 2022)
- High-Performance Building Standards (adopted

2022)

• Designation of portions of the Moss Bay Neighborhood and Station Area as a King County Regional Growth Center (and pending review of PSRC Urban Growth Center review after adoption of Station Area Plan)

Relevant projects and strategies from these initiatives are referenced throughout this document and were used to inform the structure and content of the Station Area Plan.

Within the document, several desired community benefits are identified based on community feedback, City Council and Planning Commission direction, and initial findings from the Draft Supplemental Environmental Impact Statement (DSEIS) and Opportunities and Challenges Report completed in 2020. These community benefits are outlined with a specific icon relating to affordable housing, mobility, parks and open space, sustainability, and schools. Initiatives that provide community benefits will be noted with the following icons:

EXECUTIVE SUMMARY

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PROJECT
CONTEXT

03
EXISTING
CONDITIONS





06 LAND USE AND ZONING

PARKS, OPEN SPACE AND ENVIRONMENT 08
TRANSPORTATION AND MOBILITY

09
UTILITIES AND
PUBLIC SERVICES

10 SUSTAINABILITY FRAMEWORK Community
Benefits are
denoted
throughout the
document with
these icons:



Affordable Housing



Schools and Education



Sustainability, Climate
Action, and Resilience



Open Space and Parks



Mobility: Walking and Rolling

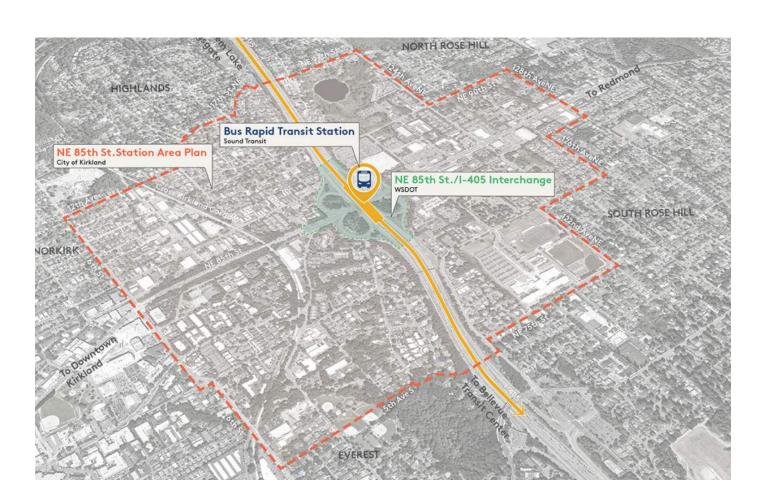
Executive Summary—

Overview and Context

Voter-approved transit funding package Sound Transit 3 (ST3) is bringing a once-in-a-generation transit investment to Kirkland with a new reconfigured interchange and Bus Rapid Transit (BRT) Stride station at NE 85th St and I-405 by 2026. The BRT Station and planned Stride BRT line (Burien to Lynnwood), developed by Sound Transit and the Washington State Department of Transportation (WSDOT), is designed to connect Kirkland to Link Light Rail service at stations in Downtown Bellevue and the Lynnwood Transit Center with frequent bus service every 10-15 minutes. The City of Kirkland's Station Area Plan (SAP) considers changes to policies, regulations and zoning to proactively plan for potential growth over the next 20+ years and encourage transit-oriented development near the BRT station to leverage this regional investment and create the most value and quality of life for Kirkland.

The Plan goals build on the 2035 Comprehensive Plan; the Highlands, Everest, Norkirk, Moss Bay, and Rose Hill Neighborhood Plans; and the Sustainability Master Plan. It includes an approach to Form-based zoning and a Planned Action supported by HB 1923. The planning process includes the issuance of a Supplemental Environmental Impact Statement (SEIS) to the 2035 Comprehensive Plan EIS.

a proactive plan to leverage a once-in-ageneration regional transit investment





Station Area Objectives and Vision

The Vision

The Station Area is a thriving, new walkable district with high tech and family wage jobs, plentiful affordable housing, sustainable buildings, park amenities, and commercial and retail services linked by transit.

The vibrant, mixed-use environment is a model of innovation. With an outstanding quality of life and unmatched mobility choices, the Station Area is ecofriendly, a place to connect, and deeply rooted in the history of the land, the people, and the culture of this special crossroads in Kirkland. The highly visible integration of ecological systems within an urban setting set the Station Area apart while tying the unique sub-area districts together with existing open space and active living opportunities.

a place to connect and deeply rooted in the history of the land, the people, and the culture of this special area

The City's Objective

Leverage the BRT station regional transit investment. Maximize transit-oriented development and create the most...

- Opportunity and Inclusion,
- Value for the City,
- Community Benefits, including:
 - Plentiful affordable housing
 - Sustainability measures
 - Park amenities
 - Active transportation improvements
 - Solutions for school capacity
- And Quality of life.



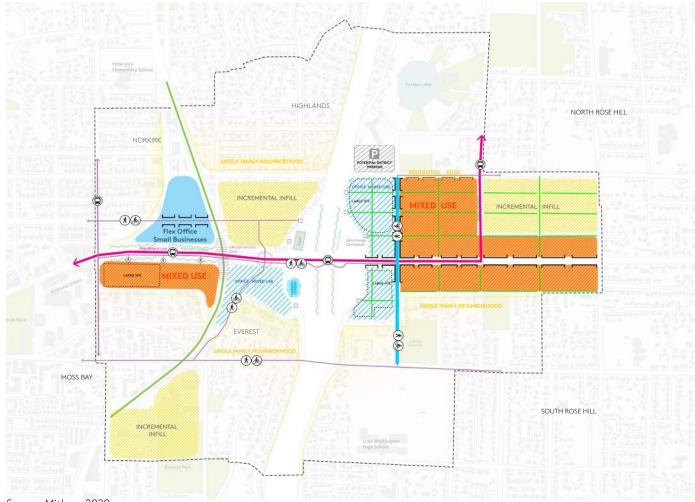
Planning for Growth

With a strong fundamental real estate market and significant regional transit investment, proactively planning for growth will help the community shape their own future by creating a vision and plan for development in the Station Area. The intent of the overall Station Area Plan growth framework is to:

- Support sustainable levels of service provision, by coordinating transportation infrastructure and land use capacity with changes near the BRT node to help achieve the City's fiscal responsibility and sustainability goals.
- Attract new jobs to foster economic activity and meet citywide targets.
- Balance the type and mix of allowed development and distribution of commercial-focused development across the area.
- Promote inclusion and support a range of attainable housing choices for existing residents, students, and workers.

The Growth Framework developed in 2020 as a basis for the Draft Supplemental EIS alternatives reflects public comments on a range of scenarios and focuses increased allowable building heights in areas that provide clear benefits to the community and take advantage of regional transit connections, rather than areas that are unlikely to redevelop due to market forces, are limited by development feasibility, or are constrained by other factors. The areas planned for greater capacity for change are focused around the BRT node and the Cross-Kirkland Corridor, including two areas in Rose Hill nearest to the planned BRT Stride station: the mid-rise office designation in the northeast quadrant and the high- intensity office designation in the southeast quadrant; and the flex industrial - residential capacity in the Norkirk LIT area in the northwest quadrant. These are supported by an urban design framework that holistically brings together infrastructure and services within a future vision for welcoming this growth.

Study Area (June 2020): initial growth concept that served as the basis for the draft SEIS alternatives



Source: Mithun, 2020

Urban Design Framework

Alongside the vision for the Station Area Plan is an urban design framework that establishes a set of overarching strategies to shape development in the future. These strategies were developed based on community input and Council direction and are reflected throughout subsequent chapters of the Station Area Plan as well as implementation tools like Form-based Code and Design Guidelines.

How should we grow?

Focus Near Transit



1. Focus growth in inclusive housing and jobs near transit.

There is a mutually supportive relationship between transit ridership and the amount of housing, jobs, and services near transit. The Station Area Plan designates the areas closest to the future BRT Stride station as priority locations for increased development. Not only are these areas prime opportunities to broaden the mix of jobs and housing choices within the station area, this strategy focuses growth in a more sustainable, compact form. In addition, the areas closest to the future station on the east side of I-405 are reserved for taller office development. This serves a dual role of providing the potential for improved commutes and focusing growth in the City where residents and employees have the best access to high-capacity transit and using larger office buildings as a buffer to protect residences from the noise and air pollution that come from high volume roadways like I-405.

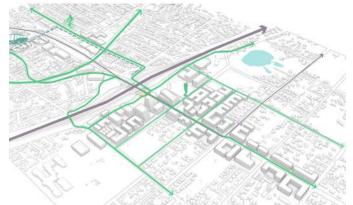
A Strong Public Realm Network



2. Establish a strong public realm network and transit-oriented community that puts people first.

The vision for the station area includes a robust, vibrant public realm with places for people to connect, welcoming public art and cultural opportunities, a mix of active ground floors, generous sidewalks, and improved tree canopy. The urban design framework identifies key streets where a combination of public and private investments will create focal points and destinations for the district, the city, and the region. These include enhancing NE 85th Street to a more urban street that becomes a place for people to engage, retail-focused streets like 120th Ave NE near Forbes Lake, and neighborhood hubs like the 7th Ave corridor in Norkirk. Each of these focal points brings together recommendations around mobility, public realm, land use, sustainability, and massing.

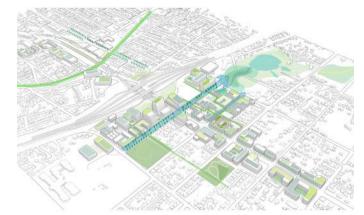
A Network of Mobility Options



3. Connect neighborhoods together with a comprehensive, multi-modal transportation network.

As a station area plan, it's particularly important to create a network of mobility options that connect transit users between the station and key services and destinations. Green mid-block connections help break down large auto-oriented blocks into walkable distances. New and enhanced sidewalks and bikeways provide safe and comfortable walking and biking connections throughout the district. Finally, increased transit service, including the Stride BRT future King County Metro's K-line BRT, flexible parking policies, and specific roadway capacity improvements provide a multi-faceted approach to mitigate congestion and accommodate travel needs on roadways and parking demand. This holistic approach to mobility is integrated into all aspects of the urban design framework.

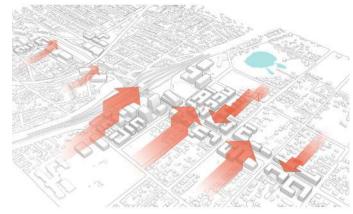
Leverage Existing Natural Systems and Resources



4. Leverage existing natural systems and resources, enhance ecosystem performance, and increase resilience.

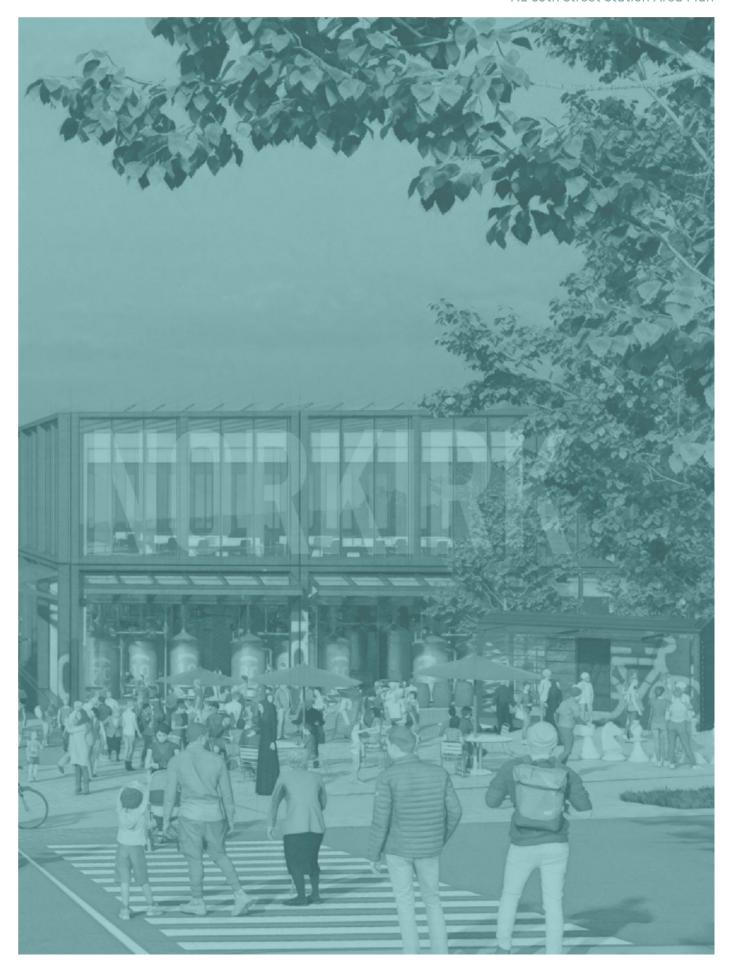
Like all of Kirkland, the station area is a rich natural environment with important ecological assets and opportunities to improve the sustainability and resilience of the district. Updated policies encourage stormwater management through on-site green infrastructure like bioswales in streetscapes and within larger developments. Street types in the form-based code will lead to increased tree canopy in the public realm, and ecological assets like Forbes Lake become the focus of a new boardwalk network and "trailhead" that's integrated into the streetscape at 120th Ave NE and NE 90th St.

Transitions in Scale to Adjacent Neighborhoods



5. Ensure appropriate development scale with transitions to adjacent neighborhoods and design regulations.

While planning for growth in the station area, supporting transitions in scale to adjacent neighborhoods is a key focus of the urban design framework. The form-based code regulates elements of massing and form to step down from larger commercial office blocks to mid-rise neighborhood mixed use development, and eventually to smaller "missing middle" infill. Special rules for transitions, landscaping requirements, and other policies further specify how new development should respond to the existing context. Additional design guidelines and the City's Design Review process will ensure that building massing and details reflect a pedestrian-oriented district.



West Character Sub Areas

The Urban Design framework is a cohesive set of design strategies used throughout the Station Area. Within the larger urban design framework, character subareas specify the unique opportunities and desired elements for each portion of the study area that build on existing assets and characteristics the community values. These subareas can inform public investments, design guidelines for future development, and placemaking.

West of 114th Ave NE, NE 85th Street is built on an elevated structure, and the topography of the area creates two distinct districts: the Maker District in the Norkirk and Highlands neighborhoods north of 85th and the Downtown Gateway District in the Everest and Moss Bay neighborhoods south of 85th . Here, the focus is supporting pedestrian-oriented districts and enhancing Cross Kirkland Corridor as the major north south connection.

Maker District

Pedestrian-oriented district building on Norkirk's character and excellent Cross Kirkland Corridor trail connections. 7th is a lively connection between the BRT drop off and downtown. The traditional mixed industrial/commercial character of the area is recognized while encouraging more urban uses supporting "maker" activities, locally-owned small businesses, active lifestyle and recreation-related private and public uses.

Downtown Gateway District

Gateway district to Downtown Kirkland via 6th St that emphasizes mid-rise residential and office uses along 6th and important bicycle and pedestrian connections along green pathways to and from the station and the Cross Kirkland Corridor providing connections between employment centers . This district will also provide the greatest opportunity to accommodate affordable housing within this higher density.

East Character Sub Areas

East of I-405, NE 85th Street is an important connector and gateway to Kirkland from Redmond. The Plan envisions NE 85th Street as a place to be, rather than travel through, that encourages people to gather and spend time in a lively public realm. It is supported by a robust mobility network that bridges existing barriers and provides safe crossings. The Forbes Lake District and Green Innovation District envision a strong public realm connection along 120th Ave NE, between North and South Rose Hill neighborhoods; and the Rose Hill Gateway District similarly envisions a cohesive public realm and safe crossings along NE 85th Street.

Forbes Lake District

A walkable mixed-use district with opportunities for mid-rise residential uses and higher intensity office uses, organized around a green main street corridor with retail and active uses combined with small open spaces on 120th that connects to Forbes Lake. Biophilic design and visible water, energy, and biodiversity strategies tell the story of this place.

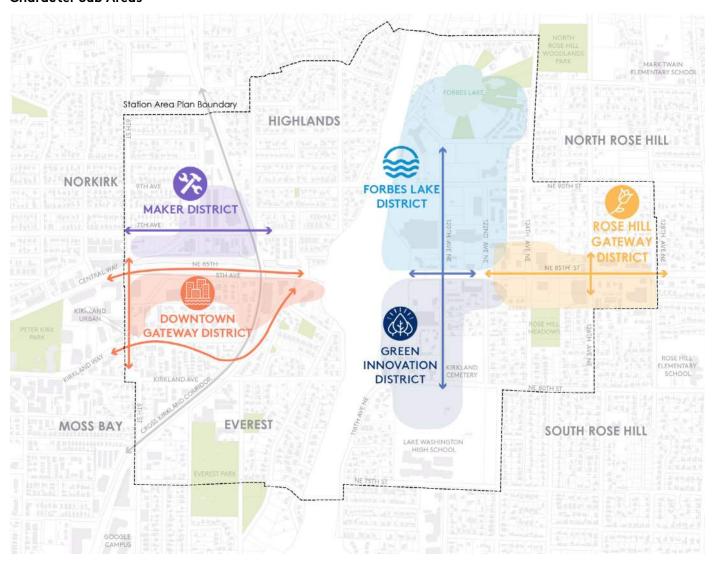
Green Innovation District

This vibrant, mixed-use district is a model of innovation and place for community, students, and the workforce to connect. It transitions from high intensity office uses near the BRT Station, to mid-rise shops and office uses, to townhouses, small apartment buildings, and civic uses. Active transportation choices, connections to green space, and walkable 120th Ave NE offer a healthy lifestyle. Existing cemetery is an opportunity for green space that provides opportunities for walking and more passive recreation.

Rose Hill Gateway District

Corridor-based gateway with a mix of active ground floors and mid-rise residential along NE 85th that focuses on creating a strong sense of arrival from Redmond with streetscape design, public art, and urban design features.

Character Sub Areas



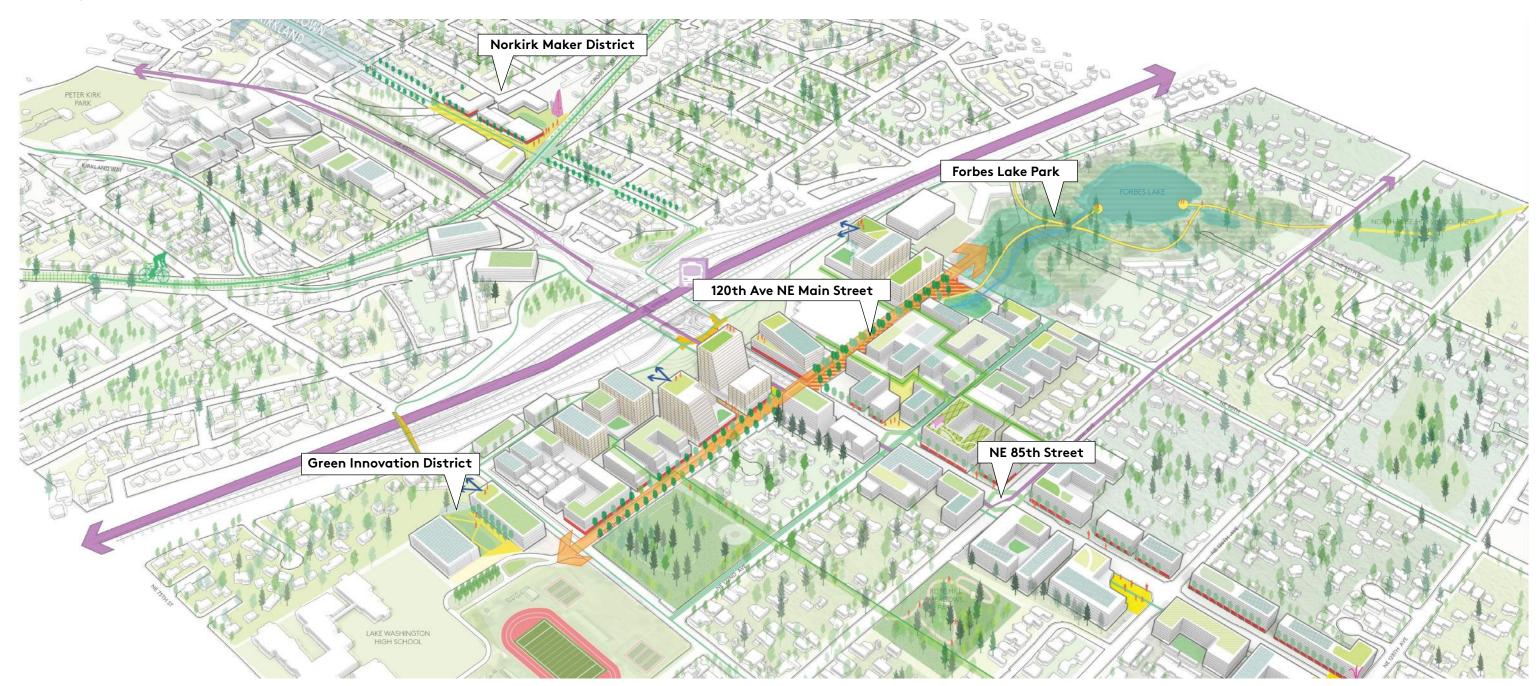
Key Urban Design Elements

Based on the vision and urban design framework, a number of key initiatives are included in the Station Area Plan. These reflect both public investments, private development opportunities and partnerships that can bring together private, public, and institutional investments to realize the greatest value for the community.

The 120th Ave NE main street establishes a new civic heart for the district, adjacent to trails and open space amenities at the newly activated Forbes Lake Park. The Norkirk Maker District creates new opportunities for local businesses and mixeduse educational facilities help meet the continued need for expanded school

capacity. New multi-benefit mobility connections provide space for enhanced landscaping in the urban context and improve accessibility to existing parks.

Businesses are integrated with activation of the Cross Kirkland Corridor (CKC). Mixed use educational facilities could help meet the continued need for expanded school capacity. A selection of those initiatives is described in the following pages.



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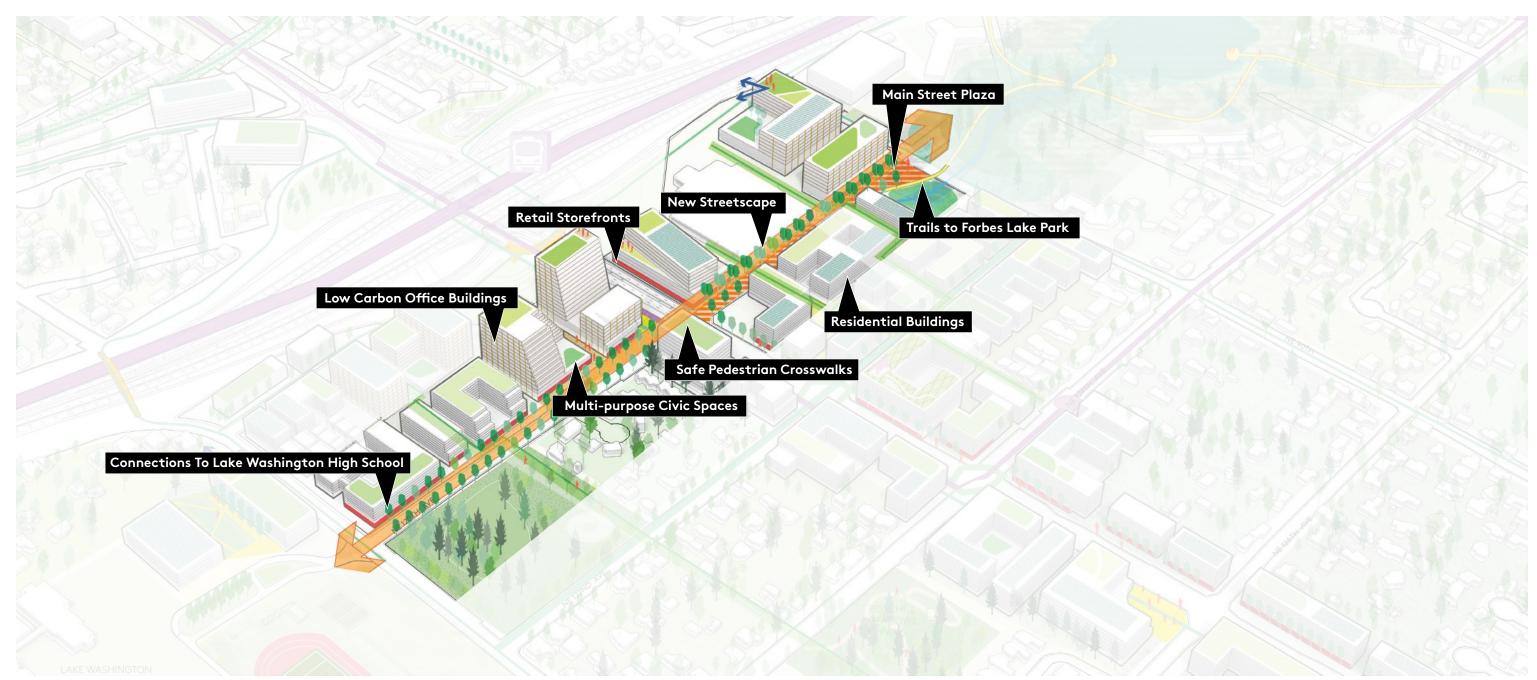




120th Ave NE Main Street

Many of Kirkland's most beloved public spaces are organized around streets that combine shopping and services, gathering spaces, and dense residential and office uses that help activate these spaces. 120th Ave NE, particularly between NE 85th St and NE 90th St, is envisioned as a future main street for the district with wider sidewalks, improved tree canopy, and human-

scaled, active ground floors. As part of the Forbes Lake subdistrict, a focus on connections to the lake through landscaping, gateway features, and wayfinding, and connections to the proposed Forbes Lake Park (see next initiative) will create a unique complement to existing destinations in the city.



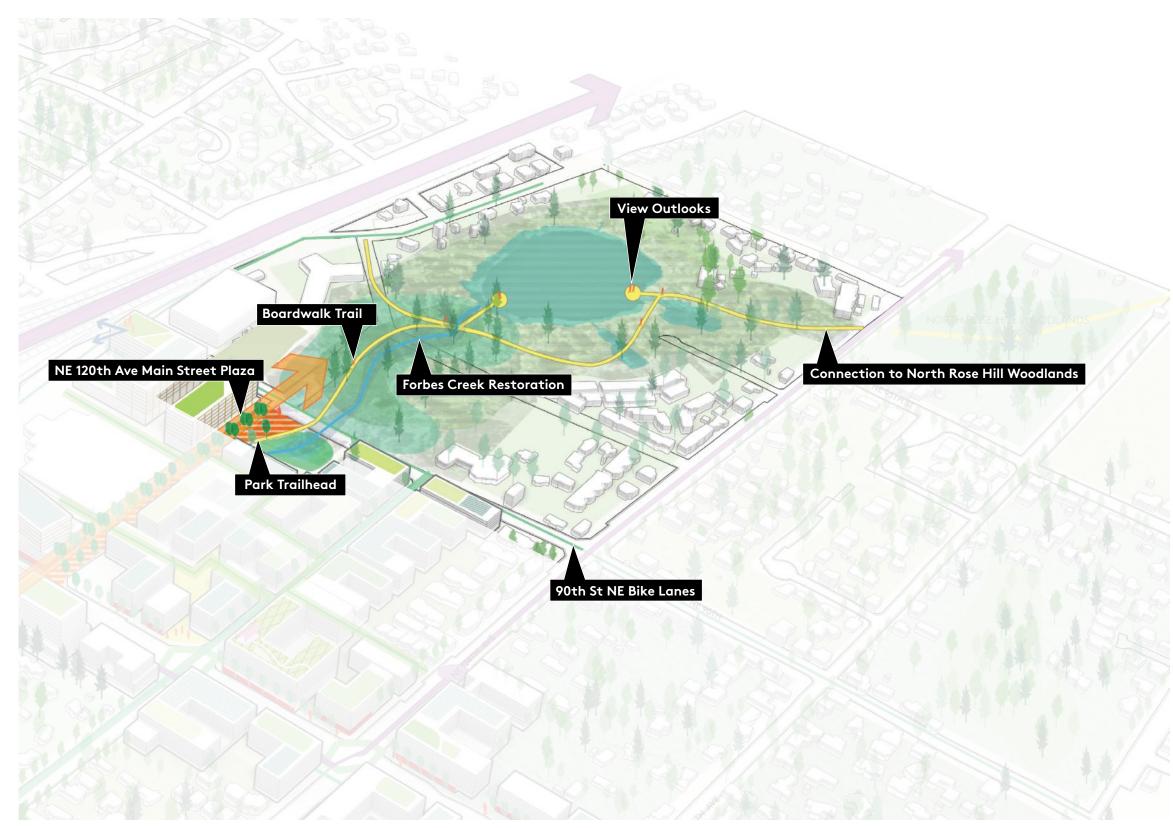








Forbes Lake is a jewel in the station area. It serves a critical ecological habitat role in the larger watershed and provides opportunities for future visitors to connect with nature and Kirkland's history. The station area plan builds on previous concepts to establish a more robust park around Forbes Lake that can make it more accessible to future visitors and improve ecological function. The key components include a trail head plaza at 120th Ave NE and NE 90th St and a network of wide boardwalks connecting NE 90th St to the North Rose Hill Woodlands Park. The boardwalk system will serve the dual purpose of connecting park visitors with nature while providing an improved bicycle and pedestrian network connecting the Station area and surrounding community.

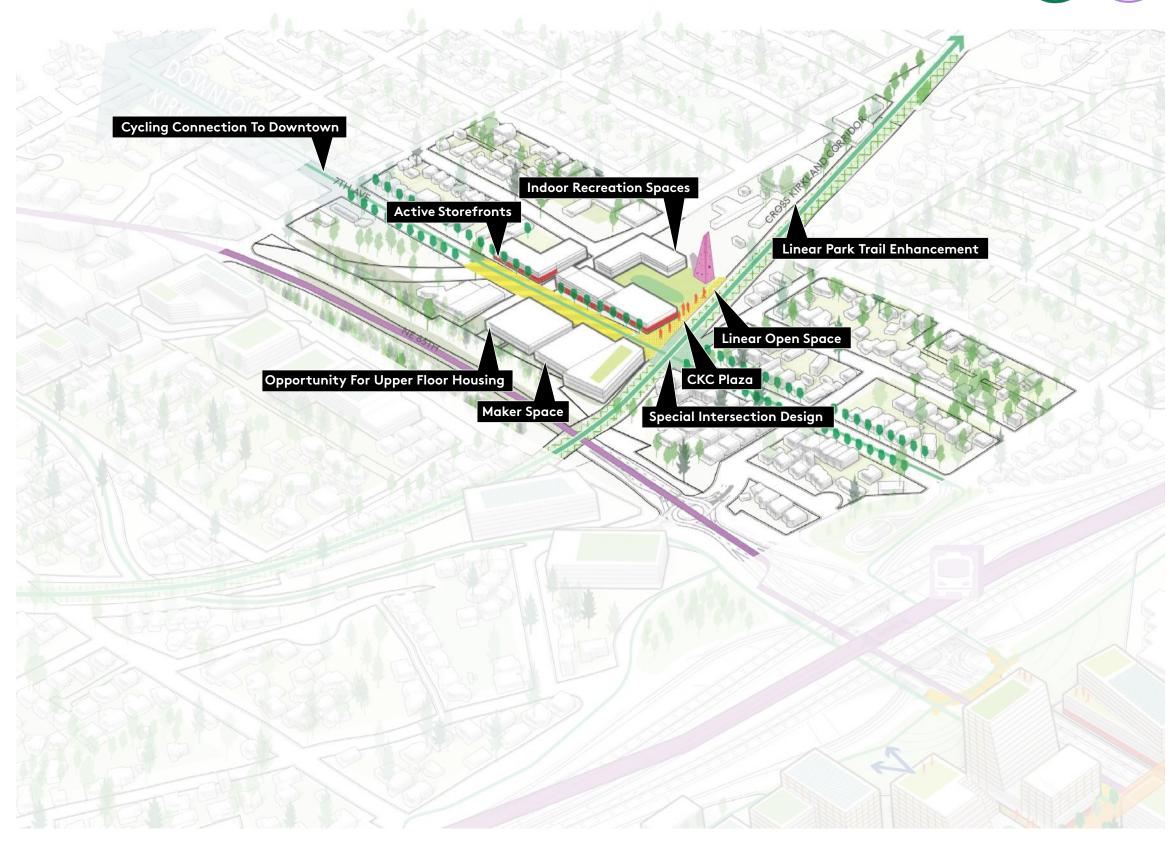


120th Ave NE Corridor and Forbes Lake Vision



Norkirk Maker District

Norkirk's Light Industrial Technology (LIT) area is an important future bike and pedestrian corridor connecting Downtown Kirkland, the CKC and the BRT Stride station. The existing character of industrial buildings and small businesses can evolve over time to maintain this industrial character while encouraging more pedestrian oriented, innovationfocused development. Maker spaces, small scale manufacturing, and local businesses will all serve to activate the corridor and create a neighborhood hub to serve Norkirk and Highlands residents, workers, and visitors. Limited residential infill will also provide opportunities for meeting Kirkland's need for diverse housing choices. Alongside these development opportunities, facilities such as climbing walls, gyms, and other indoor recreation uses can meet community needs and provide an additional draw to the area. Finally, activating the intersection of the Cross Kirkland Corridor and 7th Ave can emphasize this multimodal intersection and create a neighborhood gathering place with multimodal and recreational amenities.



Norkirk Maker District Future Vision Looking West





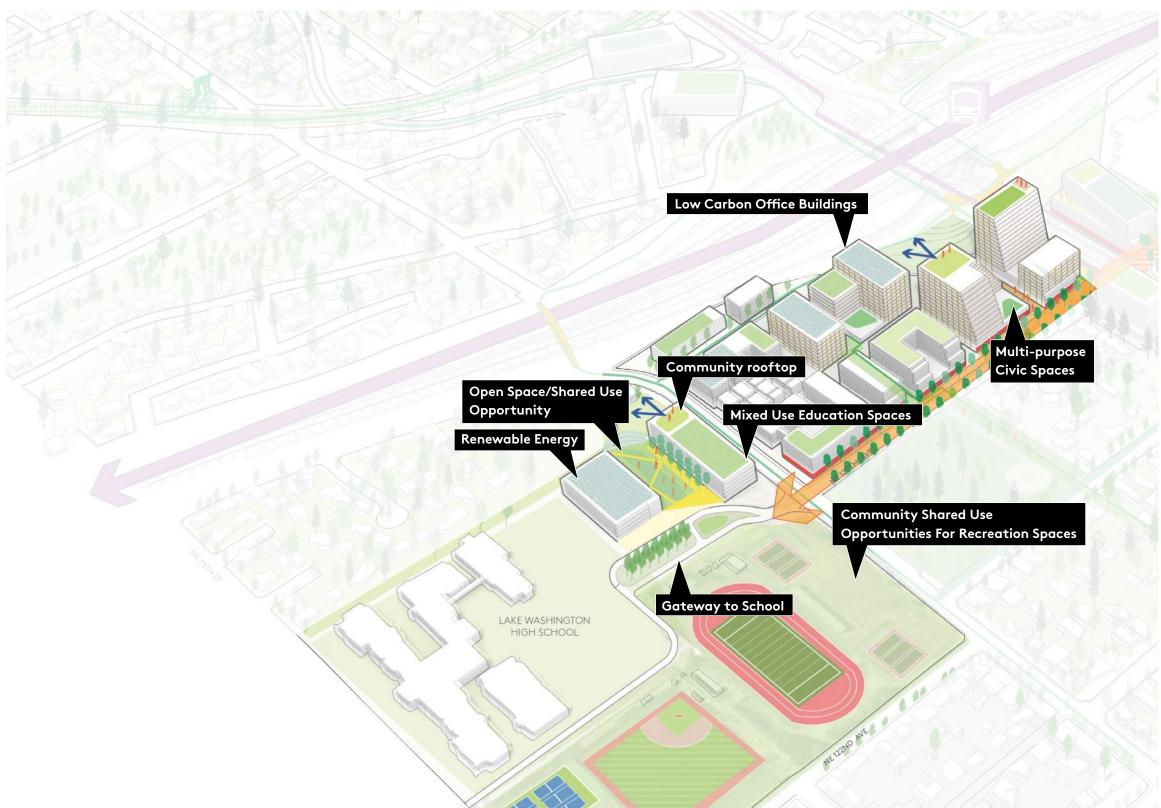






Green Innovation District

As the City continues to grow, this subarea can show how innovative urban design strategies can meet community needs. Higher intensity office located close to transit can also provide for green mid-block connections and plazas. A pedestrian oriented corridor along 120th Ave NE will link Lake Washington High School with the rest of the neighborhood and the BRT station. The current cemetery can be improved to also provide passive open space. Innovative models for schools can add significant capacity on existing Lake Washington School District properties and integrate educational space with other uses in multi-story, mixeduse buildings or within campus-like developments. There are opportunities to align educational and workforce development initiatives, supporting both large and small businesses, a green economy, and offering a range of job choices.



Moving Towards Implementation

The Study Area encompasses three main components to planning for the growth and future of this area. The first is the Plan and Planned Action Ordinance (PAO) boundary as shown in the dark black line in the diagram, which spans over 700 acres. Second, the Form-Based Code boundary which dictates design and character of the sub-area for over 250 acres within the Station Area. Lastly, the Phase 1 boundary planned for a mixed-use commercial district in the center of the plan adjacent to the future transit station.

This Station Area Plan establishes a long range vision for the study area with an urban design framework, community benefits goals, and specific strategies for elements like mobility, open space, and public services. A number of tools have been developed to support the implementation of this plan. These include:

Form-Based Code (Zoning)

A form-based code will regulate future development for a subarea of the study area. This form-based code is intended to ensure that development is facilitated by clear and predictable standards that achieve transitsupportive development intensities in a high quality, pedestrian-oriented built environment.

Planned Action Ordinance

Future development proposals within the NE 85th Street Station Area Plan study area will be reviewed for alignment with the vision, goals, and growth limits established through the Final Supplemental Environmental Impact Statement (FSEIS). Development that is consistent can be designated by the City as a Planned Action, pursuant to SEPA (RCW 43.21c.440 and WAC 197-11-164 to 172). Designating a planned action streamlines environmental review for development proposals consistent with FSEIS mitigation measures that are adopted in a planned action ordinance. Development proposals exceeding the growth studied in the Station Area FSEIS would require additional environmental analysis and review.

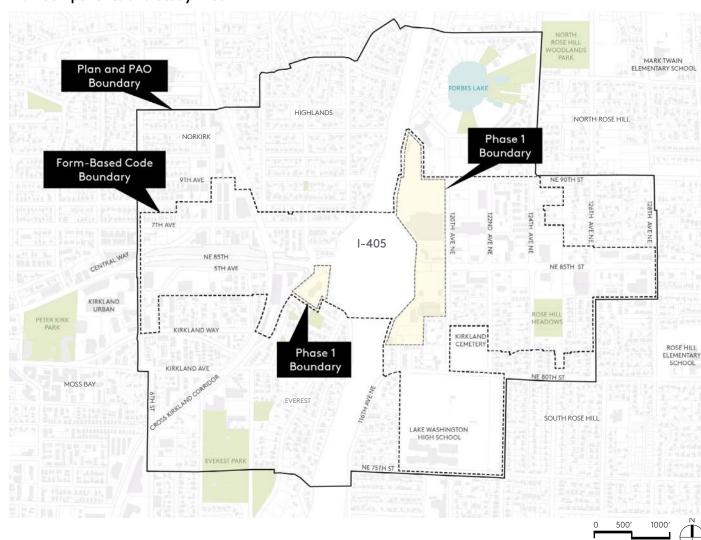
Sustainability Framework

Sustainability is woven throughout the Station Area Planning effort and the vision and opportunities framework can be found in the last chapter of this plan. Specific implementation tools include a Green Factor program that codifies how to provide green infrastructure and other ecological benefits as part of new development. Additional sustainability strategies are included within the form-based code, incentive zoning, and specific City-led public improvements.

Incentive Zoning

Incentive zoning creates a mechanism for realizing community benefits in exchange for allowing additional development capacity or other incentives. Benefits can range from affordable housing and educational space to small parks, additional tree canopy, and low carbon buildings. The Form-based Code will establish base heights allowed by right and, in certain regulating districts, a menu of incentive amenity options that would be required to build to the maximum height established for the district by the Preferred Plan Direction.

Plan Components and Study Area







Project Context

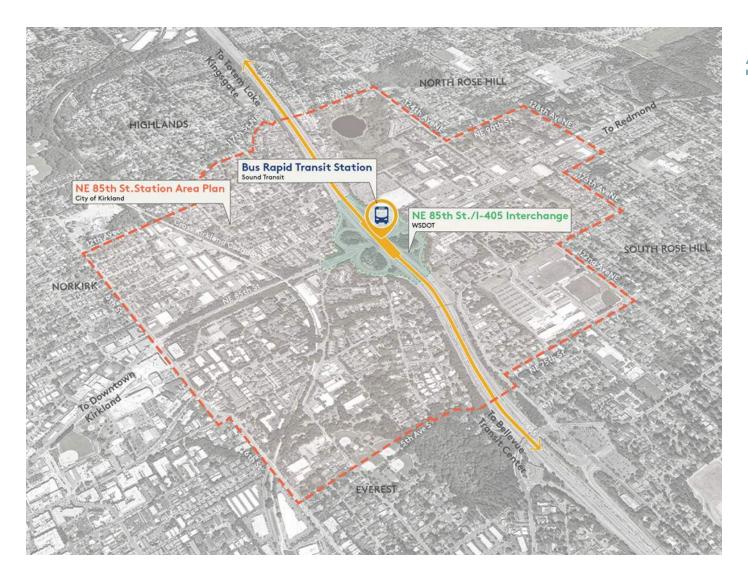
The area covered by this Station Area Plan is part of several ongoing and recent initiatives. The creation of the BRT Station prompted the design and construction of a new interchange, led by WSDOT. Sound Transit is leading the design of the BRT Station itself. The Station Area Plan, by contrast, is an effort led by the City of Kirkland to take a comprehensive look at how the surrounding one-half mile area may evolve with this new interchange and BRT Station in mind.

The City of Kirkland has also recently completed or is in the process of updating several key documents, including the Comprehensive Plan (2015), Parks, Recreation and Open Space Plan (anticipated 2022), Sustainability Master Plan (2020), High Performance Building Standards (2022), and submitted an application for Regional Center designation with Puget Sound Regional Council pending review after adoption of the Station Area Plan. Relevant projects and strategies from these documents are cross-referenced throughout the document. The Station Area Plan is an influential project for the Kirkland community and is viewed as a part of the City's strategy to achieve the objective and vision laid out in the . The SAP refers to the following nine (9) documents found in the following next pages:

Station Area Objectives

Leverage the BRT station regional transit investment. Maximize transit-oriented development and create the most...

- Opportunity and Inclusion
- Value for the City
- Community Benefits, including:
 - Plentiful affordable housing
 - Sustainability measures
 - Park amenities
 - Active transportation improvements
 - Solutions for school capacity
- And Quality of life.



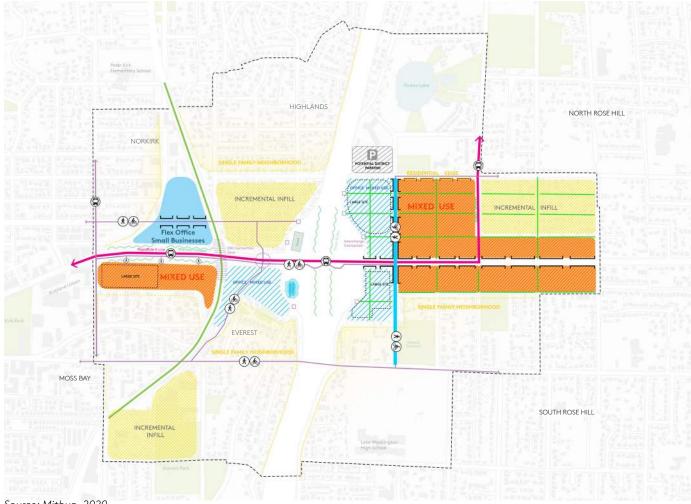
Planning for Growth

With a strong fundamental real estate market, and planned regional transit investment, proactively planning for growth can help the community shape their own future by creating a vision and plans for the Station Area. The intent of the overall Station Area Plan growth framework is to:

- Support value for the city with sustainable levels of infrastructure and service provision, and, coordinating transportation and land use with capacity for change near the BRT node, to help achieve the City's fiscal responsibility and sustainability goals.
- Attract new jobs to foster economic activity and meet citywide targets.
- Balance the type and mix of allowed development and distribution of commercial-focused development across the area.
- Promote inclusion by supporting existing residents, students, and workers, and optimize for additional workforce and affordable housing choices.

The Growth Framework reflects public comments on a range of scenarios and focuses increased allowable heights in areas that provide clear benefits to the community and take advantage of regional transit connections, rather than areas that are unlikely to redevelop due to market forces, are limited by development feasibility, or are constrained by other factors. The areas planned for greater capacity for change are focused around the BRT node and the Cross-Kirkland Corridor, including two areas in Rose Hill nearest to the planned BRT Stride station: the midrise office designation in the northeast quadrant and the high- intensity office designation in the southeast quadrant; and the flex industrial - residential capacity in the Norkirk LIT area in the northwest quadrant. These are supported by an urban design framework that holistically brings together infrastructure and services within a future vision for welcoming this growth.

Study Area (June 2020): initial growth concept that served as the basis for the draft SEIS alternatives



Source: Mithun, 2020

Referencing Key Relationships to the SAP

1. WSDOT I-405/SR 167 Corridor Program

Project includes an innovative triple decker interchange that will replace the I-405 / NE 85th Cloverleaf. Improvements will maintain an at-grade under crossing of I-405 at NE 85th and create a new second level for HOV lanes, bike and pedestrian traffic, and bus traffic. The second level will accommodate Sound Transit's new BRT Stride line. The new interchange leaves a significant amount of excess WSDOT ROW, which has been considered when developing land use, active transportation, vegetation, and stormwater recommendations for the SAP.

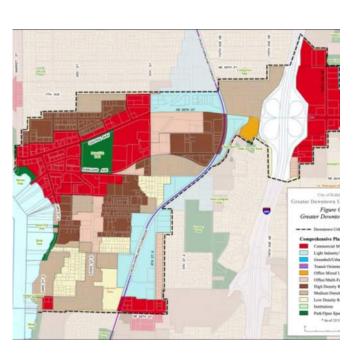
2. Sound Transit I-405 Bus Rapid Transit Program

Includes design and construction of the BRT Stride station with the new I-405/ NE 85th St Interchange. The Stride line will provide a regional connection from Burien to Lynnwood with frequent bus service running at 10 to 15-minute intervals. This new service, which will support frequent transit service connecting Kirkland to the Link Light Rail at Bellevue and the Lynnwood Transit Center, as well as connections to existing and planned transit connections on NE 85th St including the new Metro K-Line. The BRT station and planned Stride BRT line (Burien to Lynnwood), developed by Sound Transit and WSDOT, is designed to connect Kirkland to the Link Light Rail at Bellevue and the Lynnwood Transit Center with frequent bus service every 10-15 minutes.

Stride bus rapid transit

2015 COMPREHENSIVE PLAN UPDATE & TOTEM LAKE PLANNED **ACTION - FINAL ENVIRONMENTAL IMPACT STATEMENT**





Totem Lake Planned Action

3. Kirkland 2015 Comprehensive Plan Update And

The purpose of the SAP is to advance the Comprehensive Plan by supporting a welcoming, equitable, and sustainable Transit-Oriented Community as outlined in the Comprehensive Plan objectives. Together these documents will shape the continued growth expected in Downtown Kirkland and the Station Area. The NE 85th St Station Area Planned Action SEIS supplements the Kirkland 2015 Comprehensive Plan Update EIS.

4. Puget Sound Regional Council (PSRC) Greater Downtown Kirkland Regional Growth Center Designation

In November 2019, King County Council recognized Downtown Kirkland as an Urban Center, inclusive of the core areas surrounding the BRT Station. Kirkland has also applied for formal recognition of the Greater Downtown area as a Regional Growth Center from the Puget Sound Regional Council as a Regional Growth Center. PSRC review is pending completion of the Station Area Plan.



5. Parks, Recreation and Open Space (PROS) Master Plan

The Open Space recommendations in the Station Area Plan are coordinated with the draft recommendations in the PROS Plan, anticipated to be adopted in June 2022. In addition, some of the open space mitigations outlined proposed in the FSEIS will be addressed through the PROS plan.

6. Cross Kirkland Corridor Master Plan

The Cross Kirkland Corridor is a unifying recreational and transportation amenity and part of the low stress bike and pedestrian network. It serves as an important north-south connection for the community and a key element of the identities of the Norkirk, Everest, and Moss Bay neighborhoods.

The access points and intersection improvements proposed in the CKC Master Plan are referenced in the active transportation section, and amenities and potential additional ROW development along the CKC in Norkirk are referenced in the Parks and Open Space Section **Chapter 7.0**.



City of Kirkland

Parks, Recreation & Open Space Plan



7. Active Transportation Plan (ATP)

Active Transportation recommendations for the Station Area have been coordinated with the ATP update.

Concept design for several key bike / pedestrian corridors have been advanced through Station Area Planning efforts and are integrated into proposed street sections and intersection improvements in the Transportation Section Chapter 8.0.

8. Sustainability Master Plan (SMP)

The City's initiative to revitalize an auto-centric part of the City with urban, transit-oriented development reflects and ongoing commitment to long term sustainable growth patterns. The Green Innovation Code, summarized in the Sustainability Section, will be instrumental in demonstrating that Kirkland can support growth while building a greener and more environmentally-sound community . To facilitate this, the team completed a 'crosswalk' between Station Area Plan elements and Sustainability Master Plan topics. This work demonstrated that many elements embedded in the Station Area Plan help to support SMP Goals.

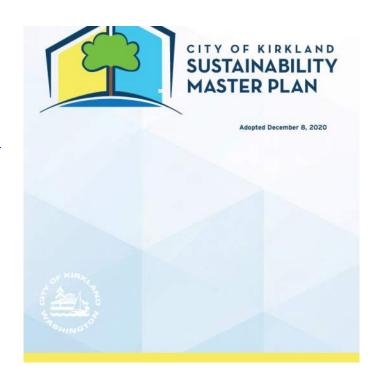
9. High Performance Building Standards

The City's High Performing Building Code has been integrated into the Green Innovation Code, which is summarized in the **Sustainability Framework section**, **Chapter 10.0**.



City of Kirkland

Active Transportation Plan Draft SPRING 2022





Developing The Plan

Background

On Feb19, 2019 the City Council adopted the City's Work Program (R-5356), which included a goal of completing land use, zoning, and economic development plans for areas adjacent to Sound Transit's NE 85th Street/ I-405 Bus Rapid Transit interchange project. To pursue this goal, the City issued a Request for Qualifications (RFQ) for planning consulting services to support the creation of a Station Area Plan in August 2019. This process is supported by a grant awarded to the City by the State Department of Commerce under HB 1923 to support the creation of a Form-Based Code and Planned Action Ordinance within the Station Area Plan.

Opportunities and Challenges Winter 2020

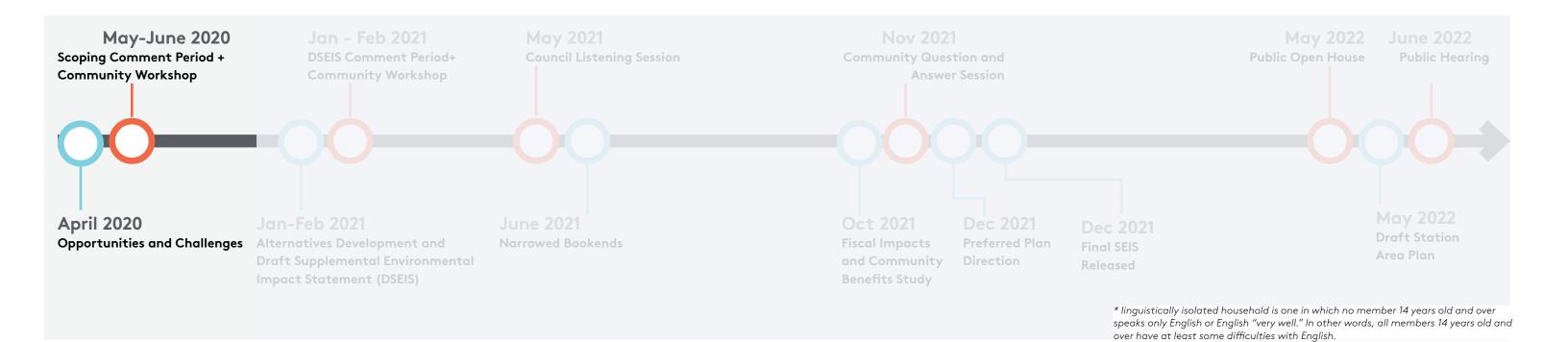
In February 2020, the team's first task was to complete an Opportunities and Challenges Report to assist in identifying the vision, values, and goals for the Station Area Plan. The Opportunities and Challenges report was released on April 15, 2020. As part of this work, the team assessed market conditions. The Market Study report, published on June 16, 2020, confirmed that the Station Area is suitable for transit-oriented

development. The opportunities and challenges report also included an Equity Impact Review, conducted according to King County's recommended methodology. To support equitable project processes and outcomes, demographic analysis was performed to identify all communities that would be affected by the project and consider how to incorporate them into the decision-making process.

These populations (in the study area) were prioritized for enhanced outreach and engagement since they will be most affected by the project and are not always well represented in conventional public meetings: residents of color (18%), limited English speakers (7%) and linguistically isolated populations* (EJ Mapper estimates 1.4%), seniors (32%), youth, (26%), renters (36%), and households experiencing poverty (6%), including clients of Kirkland's new adult women and family shelter. The engagement process focused on this equity impact to the Station Area and expanded engagement was carried out throughout the feedback process.

Assess Equity & Community Context Context Congoing Learning. Assess Equity & Community Context Analysis & Decision Process Implement

Equity Impact Review Process



Initial Concepts and Plan Alternatives- Spring through Fall 2020

On May 26th, the City released their SEPA Scoping notice. This kicked off a 3-week comment period which provided opportunities for comment in several different formats. Engagement opportunities were advertised widely including through City social media channels and e-newsletters, posters, and postcards mailed to businesses, property owners, residents in the station area. The City and its consultants held the first public Community Workshop to discuss opportunities and challenges for the Station Area, and to gather feedback on initial concepts for the plan on June 4, 2020. The workshop included a large presentation to share out information and small group activities to collect input. About 90 people, including 13 team members, participated in the workshop. Comments were also collected through a web survey and Story Map, which allowed stakeholders and the public to learn about the SAP and provide feedback on their own time. This Story Map webpage received over 800 visits, and 26 people

completed the survey. In addition, stakeholders and members of the public were invited to submit written comment. Over the 3-week period, the City received 32 written comments.

The Opportunities and Challenges analysis along with Initial Station Area Concepts were shared in a June 2020 public workshop . These concepts were used as the framework for the three alternatives evaluated in the Draft SEIS work, developed in parallel with station area planning efforts.

Draft Supplemental Environmental Impact Statement (SEIS) – Fall 2020 through Winter 2021

After reviewing input from the Community and City Council, the team developed Draft SEIS Alternatives 1, 2 and 3, which were distinguished by the level of growth which would be allowed. This phase culminated in the release of the Draft SEIS on January 5, 2021, which opened a 30-day public comment period. In response to requests from the community, and in recognition

that an extended comment period would allow for further outreach to community members traditionally underrepresented in past planning processes, the City extended the Draft SEIS comment period to 45 days.

To inform this round of outreach and engagement, the City and project team reviewed representation of minority groups in the SEPA Scoping comments, and identified voices that were underrepresented in that conversation. The Project Team developed the following targeted engagement methods to increase representation from those groups: To receive additional input from youth, the project team coordinated with the Lake Washington High School. Students from two Lake Washington High School economics classes engaged in a month long project to learn about the SAP and to provide input during the comment period. To receive input from those experiencing homelessness, the project team designed 'Meeting in a Box' including project background information and presentation materials. The Sophia Way hosted two in-person group

sessions and a few one-on-one discussions to gather input on the Draft SEIS from 26 of their clients, all of whom are women experiencing homelessness. The city also hosted a service provider round table with representatives of shelters and day centers who have clients in the Station Area on February 2, 2021. After a brief presentation, attendees provided input about how the plan can support client needs.

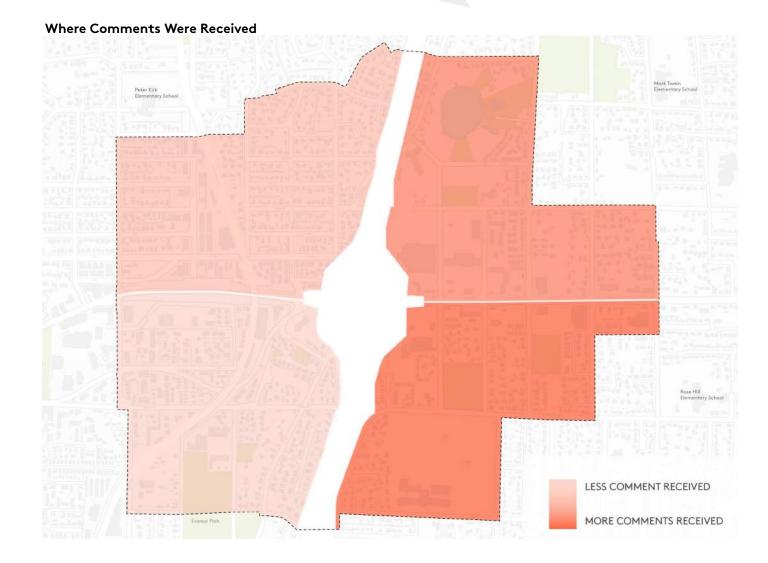
The project team pursued several broad outreach methodologies intended to expand participation in the DSEIS Comment Period across the community. The city produced a video to provide the public with information on the plan and how to provide comment. The team built on engagement methods that were found to be successful during the Initial Concepts engagement. 140 people attended an online open house held on January 7, 2021, 408 People responded to the online survey and 114 written comments that were received. These comments were all documented and responded to in the Final SEIS. For more information, see Appendix 10.7.



- Impacts of growth
- Traffic congestion
- Increased Building Height
- Impacts on Schools
- Transit Capacity
- Match of Housing and jobs for People

"Make sure there are enough schools that these children living in this proposed development can go to, and that there will be public bus routes provided before and after school."

"Is the burden to build this infrastructure going to be placed on the current tax payers of Kirkland?" "...further identify and quantify additional mitigation projects and/or Transportation Demand Management strategies that could be implemented to address these adverse impacts under Alternatives 2 and 3."



Fiscal Impacts and Community Benefits Spring 2021-Fall 2021

The comments on the Draft SEIS and planning process included concerns from the community about the impacts of growth and increased density, and a desire for the plan to help achieve community benefits such as affordable housing, plentiful parks and recreation opportunities, improvements to the active transportation network, sustainability strategies, and school capacity for students in the Station Area. In response to these concerns and following a review of the DSEIS, Council directed the project team to expand the project scope to complete a Fiscal Impacts and Community Benefits Analysis in order to: analyze the fiscal impacts of infrastructure and public service provision to accommodate future growth in the Station Area; explore strategies to achieve Community Benefits from growth; and further analyze the transportation network. To facilitate this analysis, the project team

developed new alternatives to respond to the vision for Kirkland's future shared by community members. In advance of Council decisions about which growth alternatives to analyze in the Fiscal Impacts and Community Benefits Analysis, the Council held a special meeting on May 26, 2021 that served as a Listening Session for community members to provide input on the Station Area Plan directly to Council members. At their June 15, 2021 meeting, Council endorsed Alternative A (Current Trends) and Alternative B (Transit-Connected Growth) for study in the Analysis. This narrowed the bookends of potential growth under consideration for the final Plan, and eliminated Draft SEIS Alternative 3, the highest growth alternative.

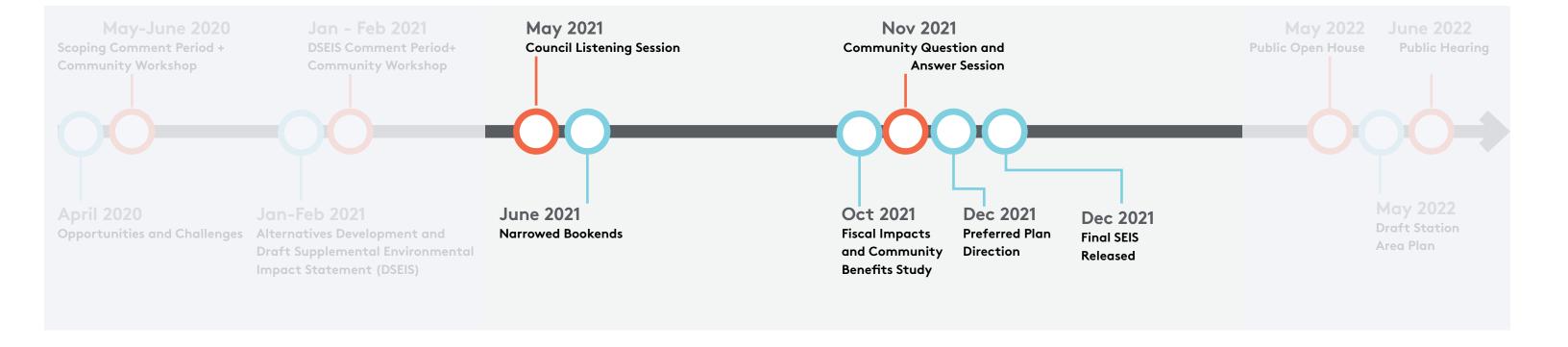
On October 26, 2021, the City published the Fiscal Impacts and Community Benefits Analysis Technical Memo, which found that if the City were to select June Alternative B to implement its vision of the Station Area, the City could afford the investments necessary to address the increased demand on public services,

and avoid a reduction in service for existing community members and businesses. The memo recommended a series of policy changes and benefit capture strategies necessary to support this outcome. Upon review of the Fiscal Impacts and Community Benefits Memo, Council directed staff to draft a Preferred Plan Direction based on Alternative B (Transit Connected Growth) for inclusion in the Final EIS, and to prepare an additional scope of work to support further development of the community benefits strategies. On November 1, 2021, The City hosted a Community Question and Answer Session to provide an opportunity for the community to engage directly with the project team and ask questions regarding the Fiscal Impacts and Community Benefits Analysis and related topics.

Final Supplemental Environmental Impact Statement (SEIS) – Winter 2021

The project team integrated Council's vision of the Station Area into the Preferred Plan Direction. This describes a thriving, new walkable urban center with high tech jobs, plentiful affordable housing, sustainable buildings, and shops, and restaurants linked by transit. The Preferred Plan Direction was presented to Council on December 14th, 2020. Council passed Resolution R-5503, which adopted the Preferred Plan Direction and instructed the project team to proceed with drafting a final Station Area Plan, Form-based Code and zoning amendments, Comprehensive Plan amendments and a Planned Action Ordinance based on the Preferred Plan Direction. R-5503 also directed the City Manager to procure consulting services to further develop community benefits strategies.

The Preferred Plan Direction was integrated into the Final EIS along with responses to Draft SEIS Comments and related edits. The Final SEIS was released on December 30th, 2021.



Community Benefits Study – Winter to Spring 2022

As directed in R-5503, the project team began to advance the Community Benefits Policy Framework including key topics of parks, affordable housing, mobility, sustainability, and schools/childcare/education to help support Station Area Plan implementation. This entailed additional engagement and meetings, transportation analysis, the development of an incentive zoning program, and drafting a Green Innovation Code. The Project Team received guidance on this approach in 4 public meetings: A March 10, 2020 presentation to Planning Commission to provide an Introduction to the Form-Based Code , a March 23 Project Update for Transportation Commission, an April 5 Process update and Key Issues Status Briefing for City Council, an April 26th Joint City Council and Planning Commission Policy Direction Study Session, an April 27 presentation to Transportation Commission on

supplemental analysis, and a May 12 Joint City Council and Planning Commission Draft Document Review Study Session. The Community Benefits strategies will be integrated into the Comprehensive Plan policies for the Station Area and a series of Zoning Code amendments. The zoning amendments related to the Commercial Mixed Use Districts are intended to be adopted in June 2022, with amendments relating to the remainder of the Station Area regulating districts adopted later in 2022.

Final Plan and Form-Based Code – Winter to Summer 2022

Implementation of the vision established in the Preferred Plan Direction and forthcoming NE 85th Street Station Subarea Plan requires a comprehensive set of regulations and supporting design guidelines. This form-based code is intended to facilitate development in the Station Area with clear and predictable

standards that support transit-supportive development intensities in a high quality, pedestrian-oriented built environment. City staff and the consultant team are developing the code in a phased approach, beginning with the Commercial Mixed Use district and associated elements, and continuing to the additional districts later in 2022.

This Final Station Area Plan report is a summary of the entire process described above, and the recommendations developed through over two years of community engagement and technical analysis. It illustrates the vision for the future of the station area plan and documents recommendations to support ongoing planning efforts by the City and realize transitoriented development that creates the most value for the City and maximizes community benefits.



Online Engagement Event: Utilizing a tool called Miro to explain concepts to the public.



Online Engagement Event Via Zoom Platform



Engagement Summary Feedback

The NE 85th Station Area Plan has gone through substantial community engagement as outlined in the previous section Developing the Plan. Throughout the process a number of different voices, and methods of collecting feedback have been implemented. Ongoing

public discussions have also occurred with 6 public Transportation Commission meetings, 8 public Planning Commission meetings, as well as 11 public City Council Meetings since March 2022.

*Includes 2 community workshops, 1 City Council listening session, and 1 community Q&A session

Listening
Sessions /
Workshops*

1 Community Open House 114
Written
Draft SEIS
Comments

150+
Written
Comments

408
Survey
Responses

Public Planning Commission Meetings

Public City
Council
Meetings

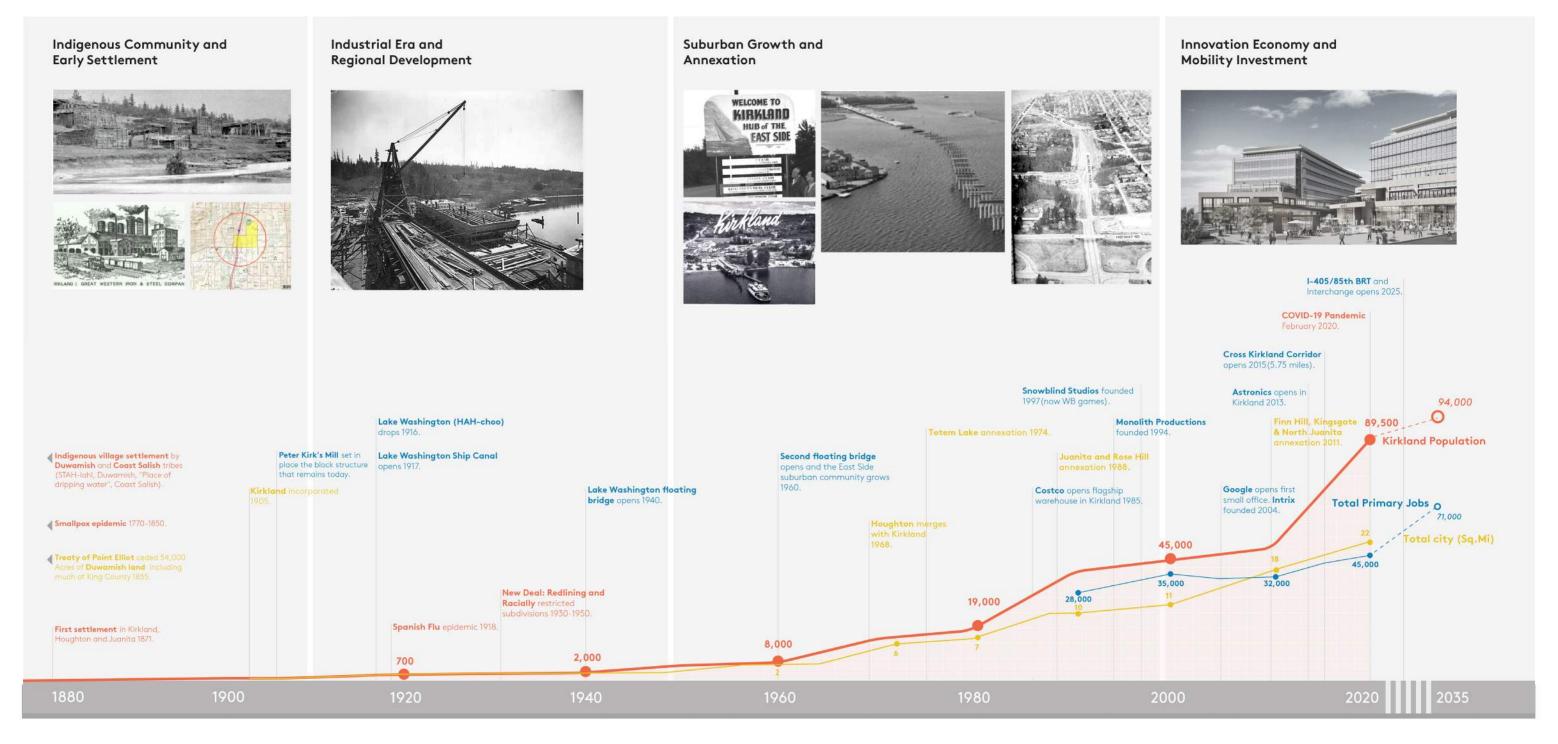
Public Transportation Commission Meetings

Existing Conditions

Growth Trends

This station area's history echoes many of the same forces that have shaped Kirkland's evolution as a whole. Kirkland's founder, Peter Kirk, sited a mill near the present-day interchange to take advance of the topography and access to Forbes Lake. Although the

mill is no longer there, the large land area it required is reflected in block pattern and parcels of that portion of the study area today. Other themes, such as the long relationship between transportation infrastructure and growth, continue to shape the city today.



Our Community

The station area includes about 3,100¹ residents as well as over 3,200² jobs. People of all stages of life live, work, learn, and visit this special place in Kirkland. The plan recognizes the many intersecting dimensions of social and economic identities and aims to advance an inclusive district where people of all ages and abilities are supported and welcome.

Seniors

About a third of people who live in the area are over 65 years old³. Many have owned homes here for years, and there are also people who have moved here more recently. The hilly area and lack of safe places for walking may create challenges for older adults to access services and connect with neighbors.

Youth

A quarter of the people who live in the area are 18 or younger⁴, and Lake Washington High School has about 1800 students . There is a substantial demand for childcare space and indoor recreation opportunities within the station area, and growth in the area will require more school capacity in the future. The Cross Kirkland Corridor and other parks are great assets, yet youth may also have challenges to easily walk and bike throughout the area.

Race, Ethnicity, and Language

The area has a higher proportion of white people than the average in King County. About 18%⁵ of residents are people of color. Nearly a quarter of people who live in the area are immigrants⁶, and about 7%⁷ of people in the area have limited English language skills. People who are racialized often face institutional barriers within our communities and may have less access to social networks and services.networks and services.

- 1 American Community Survey 2018 estimates
- 2 Longitudinal Employer-Household Dynamics, US Census Bureau, 2017
- 3 American Community Survey 2017 estimates
- 4 American Community Survey 2017 estimates
- 5 American Community Survey 2017 estimates 6 American Community Survey 2017 estimates
- 7 American Community Survey 2017 estimates
- 8 American Community Survey 2017 estimates
- 9 Longitudinal Employer-Household Dynamics, US Census Bureau, 2017

Compared to other parts of Kirkland, there is a higher proportion of people who rent within the area, rather than owning their homes. Renters include people of all ages and life stages, from students to seniors. Renters have less control over changes to their housing costs and are not always well represented in public meetings and comments due to conventional notification practices and associations which often center homeowners.

People experiencing poverty

About 6% of households in the area are below the poverty line, including clients of Kirkland's new adult women and family shelter. Many people are burdened by high costs and may spend a significant share of their income on housing, or not have secure housing. The share of employees in this area who earn low wages is about 48%, compared to about 30% of residents citywide, and they may be working multiple jobs to make ends meet.

People with disabilities

Between 6-8% of people in the area overall have disabilities, including difficulties with mobility, vision, hearing, and others. People with disabilities may have low life outcomes and be more likely to be under employed or experience housing instability. In the station area, a quarter of people who are living in poverty also have a disability.

advance an inclusive district where people of all ages and abilities are supported and welcomed.

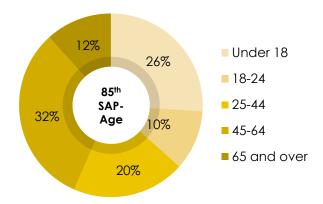


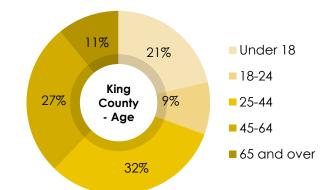


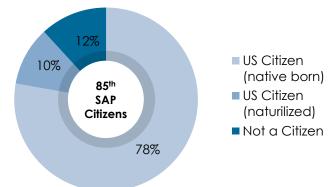


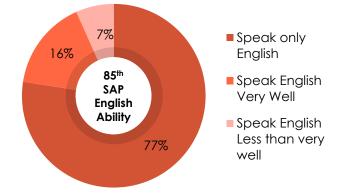


Resident Demographics

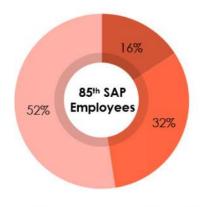




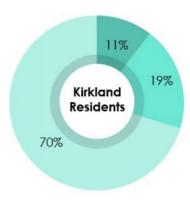




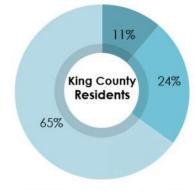
Employment Demographics



- < \$1,250 (federal poverty guideline)</p>
- \$1,251-\$3,333 (below living wage)
- >\$3,333 (living wage)

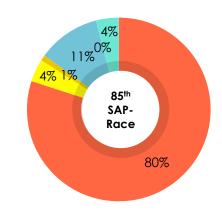


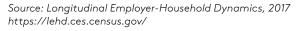
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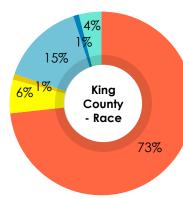


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- >\$3,333 (living wage)

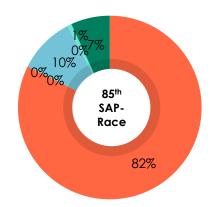
Employee Demographics

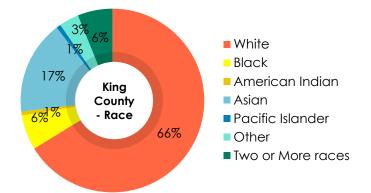


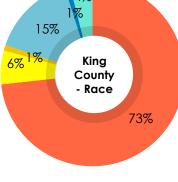




Resident Demographics







The Station Area Today

Today, development in the study area reflects the different eras of growth for Kirkland. Low density neighborhoods anchor the district, ranging from large lot homes to smaller bungalows. The northwestern portion of the study area also includes a mix of townhouses and other infill adjacent to single family neighborhoods, and small apartment complexes. This mix is important for housing diversity. The western part of the study area is also home to a pocketed, somewhat isolated set of developments.

Auto-oriented office buildings, light industrial, and multi-family complexes add diversity to the study area

but lack pedestrian access and visual connections to the public realm. The eastern portion of the study area is dominated by large parcels of strip retail. This type of development is marked by large surface parking, auto-oriented sites with frequent driveways and curb cuts, and a weak relationship to street frontages. Because 13% of the land within one half mile from the BRT station is comprised of the WSDOT right-of-way, this road infrastructure plays an influential role in the character in the study area. These parts of the study area are prone to significant noise, unused open space, and uneven maintenance and vegetation.

710 acres, >3,000 jobs¹, >3,000 residents² 1 industrial district 1 regional trail 1 cloverleaf interchange

1 high school
1 cemetery
1 lake
2 watersheds
1 community park

45% surface parking 25% to 44%³ tree canopy cover 6 neighborhoods



² Source: American Community Survey 2018 estimates











³ Source: City of Kirkland 2018 Urban Tree Canopy Assessment

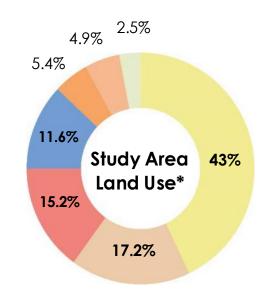
Land Use

The study area is marked by a strong congruence between zoned and existing uses. Very few examples of non-conforming uses are found in the study area. At the same time, much of this conformance is due to zoning designations that respond to the specific circumstances of numerous subareas. Examples include the Rose Hill business district and areas in Everest adjacent to 85th St.

Overall land use for the study area reflects two main trends. First, I-405 serves as a dividing line between a

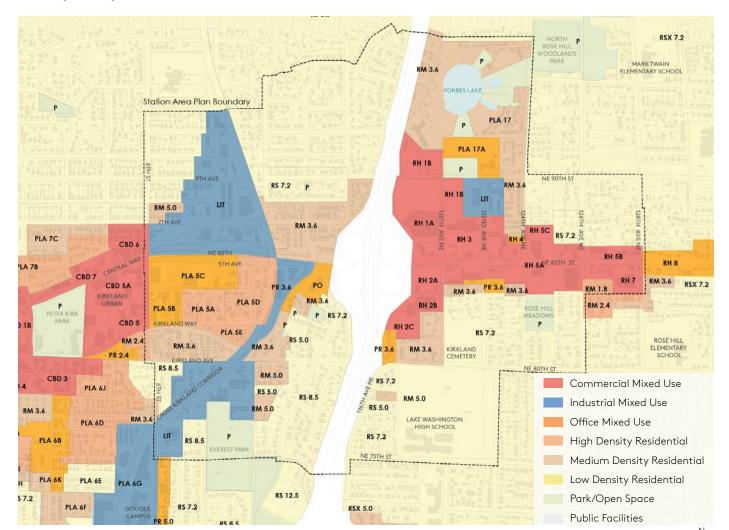
relatively single-use area in Rose Hill and a much more pocketed, patchwork of uses west of I-405. The second is the role of lower density residential parcels, which comprise a significant proportion of the study area but a relatively small proportion of the parcels directly bordering the WSDOT ROW.

Both this distribution of land uses and the edge condition of the ROW are important considerations for creating effective transitions in the Station Area Plan.

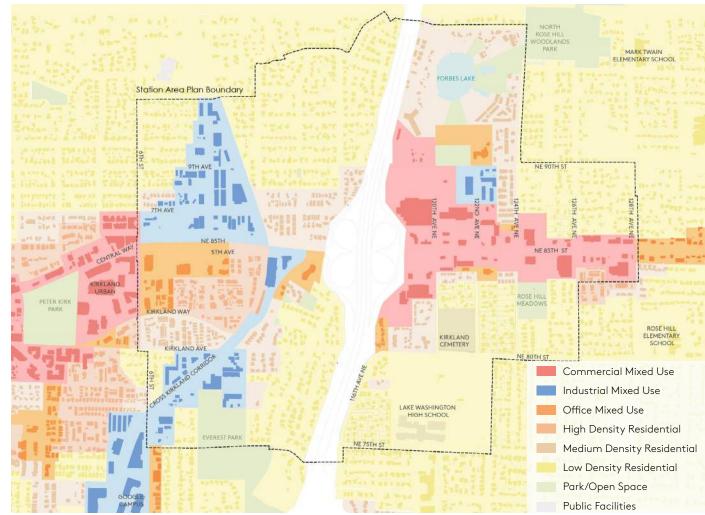


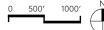
*Net land use as percent of total parcel area, excluding WSDOT ROW.

Existing Zoning



Existing Land Use



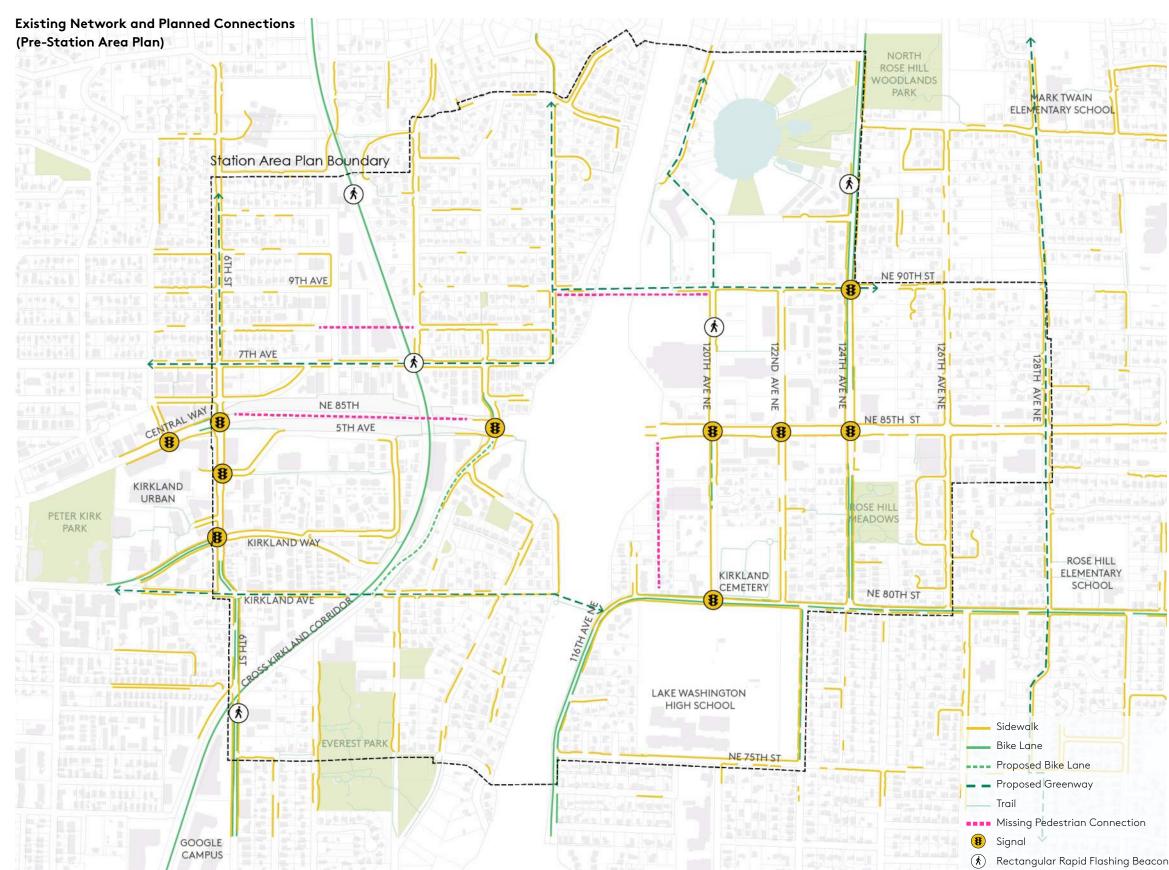


Pedestrian & bike connections

Kirkland was developed over several decades, which is reflected in both the block structure as well as the mix of streets with and without sidewalks. Many major streets have sidewalk coverage, with the prevailing sidewalk width varying between 5-8 feet. NE 85th St. and Kirkland Way lack sidewalk coverage from the interchange itself west to 6th St, a key route which connects the study area to downtown. As part of the funding agreement with Sound Transit for the future BRT station and interchange project, there will be a new shared use path south of NE 85th St to connect the station to 6th Street. Local streets have some sidewalks, however many of the adjacent commercial and industrial areas lack coverage or there are gaps along a block. 120th Ave NE, 122nd Ave NE, 126th Ave NE, NE 90th St and 116th Ave NE all lack consistent sidewalks.

There is also a lack of continuity in the bicycle facilities provided in the study area. On the western side of the study area, the Cross Kirkland Corridor provides the most significant north/south connectivity, while partially buffered bike lanes on 80th St, bike lanes on 124th Ave NE, and the newly completed greenway on NE 75th St and 128th Ave NE act as the primary connections on the eastern side of the station area.

For both people walking and biking, east/west connectivity across I-405 is a significant challenge. There is an existing pedestrian bridge at Kirkland Ave/116th Ave NE, and planned improvements to address this gap include the future Stores to Shores greenway which will improve access to the existing NE 100th St bridge and the WSDOT-designed shared use paths through the interchange at I-405 and 85th.





Transit

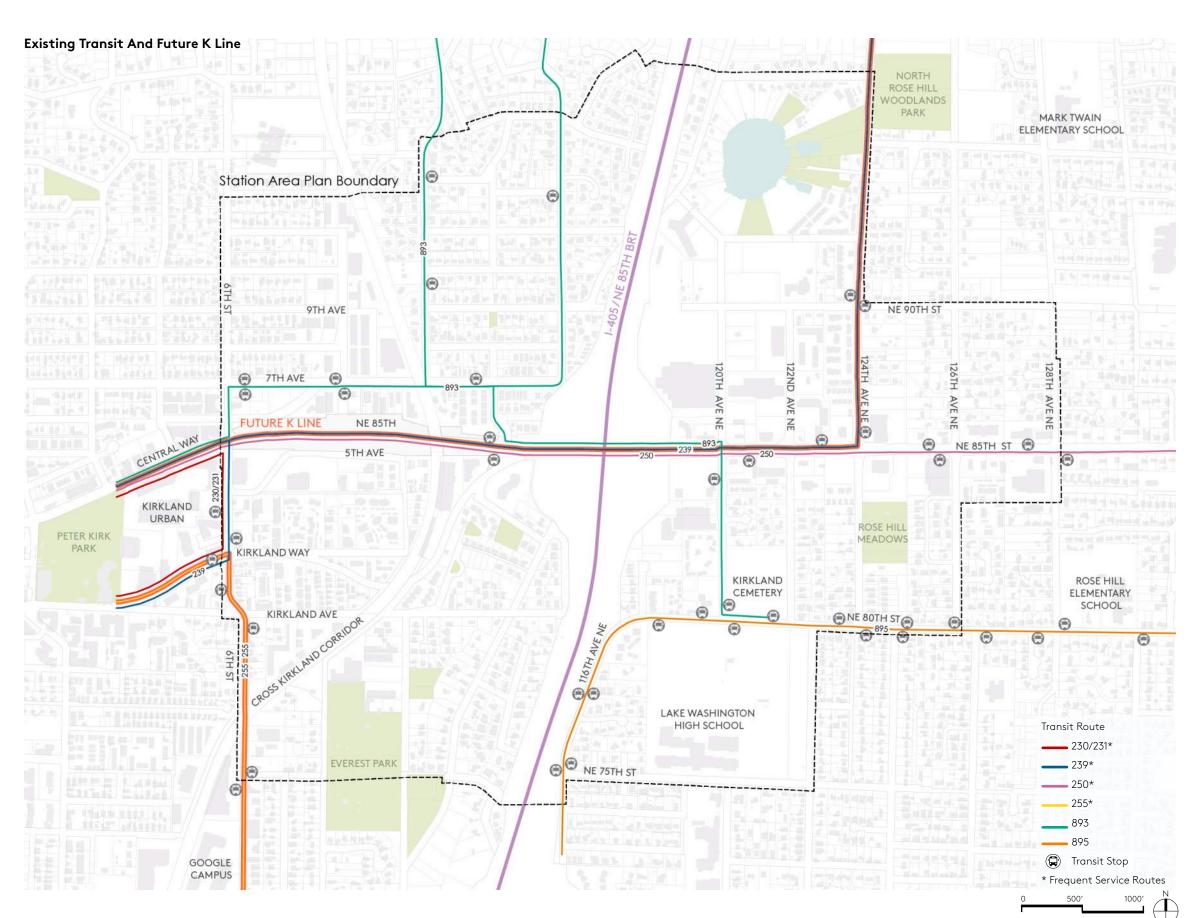
The new BRT station at I-405 and 85th St will greatly improve transit connectivity for Kirkland. Within the station area, NE 85th St and 124th Ave NE are the primary transit corridors which have transit service from the Kirkland Transit Center in Downtown Kirkland to Totem Lake, Redmond, and Downtown Bellevue.

Route 250, which connects to Redmond along NE 85th St is the only route currently designated as a "frequent all day route" with service every 15 minutes*.

serve the fast-growing communities between Totem Lake in Kirkland and Bellevue. The K Line buses will come more often and reliably on-time, with service added at night and on weekends.



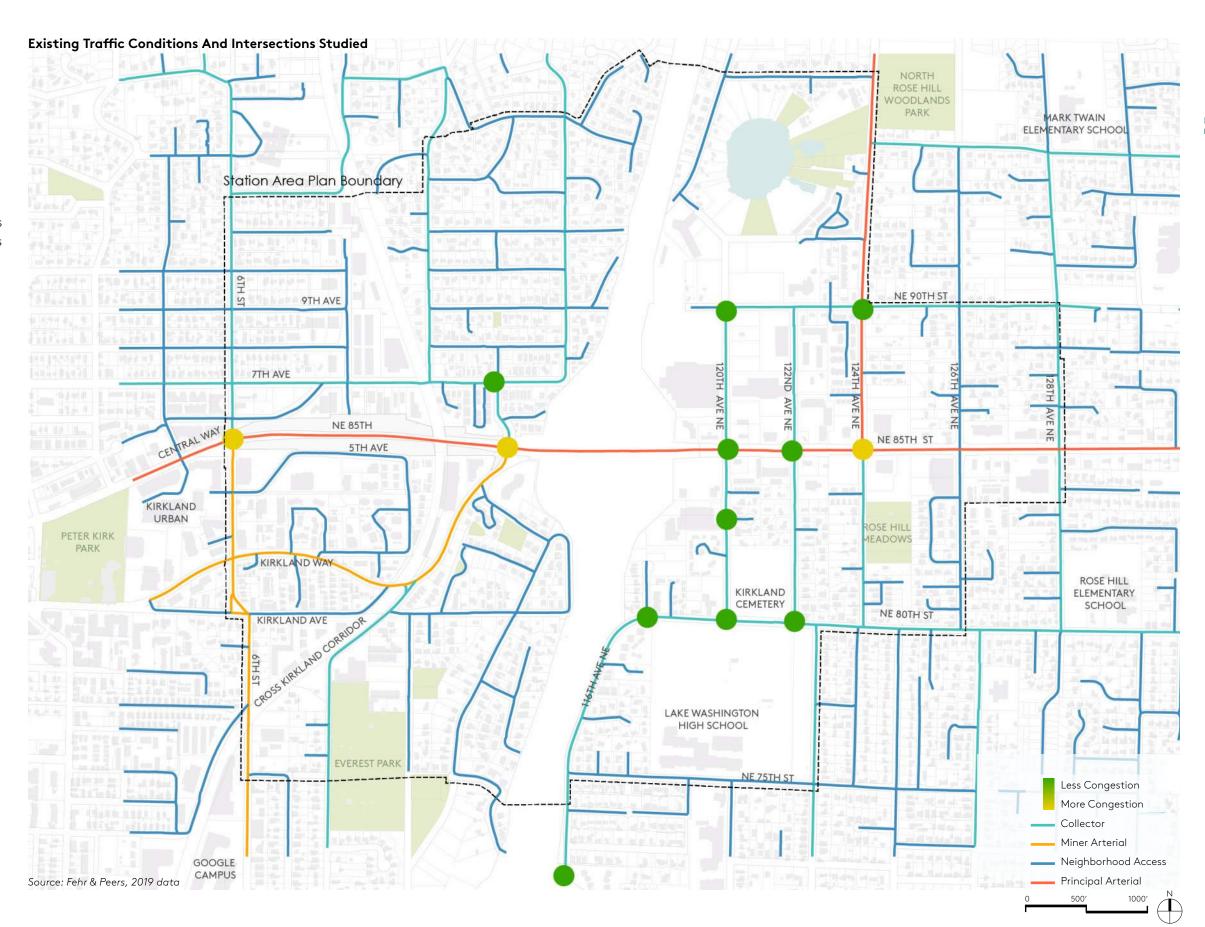




Vehicle traffic

Road infrastructure in the study area is primarily oriented around NE 85th St serving east/west traffic and 124th Ave NE and I-405 serving north/south traffic.

Generally, intersections are most challenged where arterials meet, such as at Kirkland Way and 85th. There is anticipated vehicle delay at intersections due to increased regional growth and congestion. ST/WSDOT is incorporating additional vehicle capacity improvements in the study area as part of the I-405 interchange project, including as roundabout at NE 85th St and Kirkland Way and a third eastbound lane from the interchange to 122nd Ave NE. See Appendix 11.6 and 11.9: Transportation Analysis for more detail on existing vehicular network performance.



Open Space

Kirkland as a city is well served by parks and open space. The Lake Washington waterfront, Peter Kirk Park, Everest Park, and the Forbes Lake Park all serve adjacent neighborhoods with a mix of passive natural open space and active recreation facilities.

However, the study area itself is generally lacking in parks and open space across several measures.

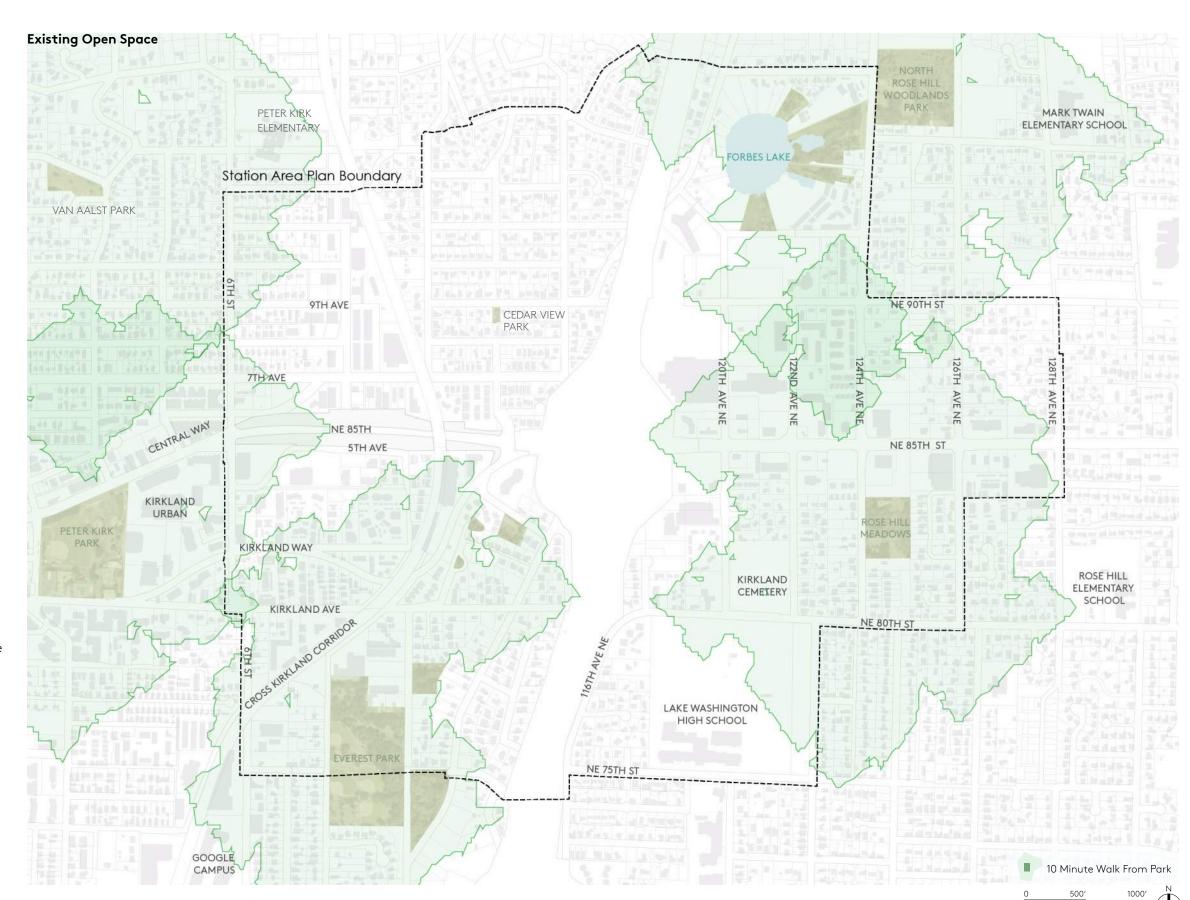
Access to Parks

One measure of parks and open space provision is access to nearby parks. Much of the study area today, particularly the Highlands neighborhood and the interchange area itself, are not within a 15 minute walk of a single large park. Moreover, only a small portion of Rose Hill has access to more than one park within a 15 minute walk.

Park Amenities

Most parks that serve the study area include a mix of natural areas as well as active recreation. Everest Park and Rose Hill Meadows both include playground equipment, while Forbes Lake Park provides access to nature trails. Two smaller parks within the study area provide pocket park amenities like small play areas and community gardening. However, only these smaller parks fall within the study area itself.

In addition to these neighborhood parks which are accessible to portions of the study area, there remains significant opportunity to provide parks and open space that directly serves new development near the station itself, serving a critical mental and physical health need and providing the opportunity for gathering and social cohesion.



Watersheds: The study area straddles two primary watersheds roughly divided along I-405: Moss Bay and Forbes Creek. Moss Bay consists of short stretches of open channel separated from Lake Washington by long piped sections. The Forbes Creek watershed includes Forbes Lake and associated wetlands and creeks. The Forbes Creek Watershed provides important aquatic species habitat, and is vulnerable to stream bank erosion and increased sediment loads.

Topography: Like other parts of the Puget Sound Lowlands, Kirkland's topography was shaped during the ice age with elements such as kettle ponds and moraines. Within the study area, the slope generally rises West to East away from Lake Washington. This consistent slope creates excellent views at the I-405 interchange. The bermed and elevated portion of 85th St between 6th St and 114th Ave is a significant man-made topographic feature, which influences several aspects of the study area, from land use and stormwater to transportation access.

Vegetation: Similar to other parts of Kirkland, the study area includes dense areas of vegetation interspersed through existing neighborhoods. Three of these are of particular significance for the study area: A woodland corridor at 85th St between 6th St and 114th Ave, a riparian corridor that includes Everest Park, and the wetlands and associated lands surrounding Forbes Lake.



Stormwater

The Storm and Surface Water Division of Kirkland Public Works is responsible for managing the City of Kirkland's stormwater system. Within the NE 85th SAP study area, a large portion of the storm-water conveyance is the responsibility of WSDOT along I-405. WSDOT has its own stormwater manual, the Highway Runoff Manual (HRM).

Public Services & Amenities

Known System Deficiencies in the Forbes Creek basin are related to water quality and fish habitat. Concerns in the basin include sedimentation, flooding, and fish passage barriers and a regional detention facility has been proposed for the basin. Peter Kirk Park is used as a detention storage area for stormwater during peak events and is mapped as a floodplain.

Water

Potable water is purchased by the City of Kirkland from Seattle Public Utilities (SPU) through the Cascade Water Alliance (Cascade). Cascade is an association of five cities and two water and sew-er districts in Puget Sound that have partnered to supply water to over 380,000 residences. The Kirkland Water Division operates and maintains the City's water infrastructure. In 2013, average water usage for the entire Kirkland system was 5.3 million gallons per day.

Some areas of the City's system are over 40 years old, and water mains are expected to have a life expectancy of only 50 years. Portions of the system, particularly in the older parts of the city, may need to be replaced within the next ten years.

The WSDOT Interchange Design Plans identify an existing water main that runs along NE 85th St across I-405. This main may be influenced by the project, but WSDOT Interchange Design Plans do not yet include the replacement main.

Wastewater

The Wastewater Division of the City of Kirkland Department of Public Works maintains the City's sewer system, which serves the southern portion of the city. The portion of the city North of NE 116th St of the city is served by Northshore Utility District (Northshore) (RH2 2018). The City's sewer system is made up of 13 major drainage basins, six pump stations, approximately 122 linear miles of gravity sewer piping, and approximately

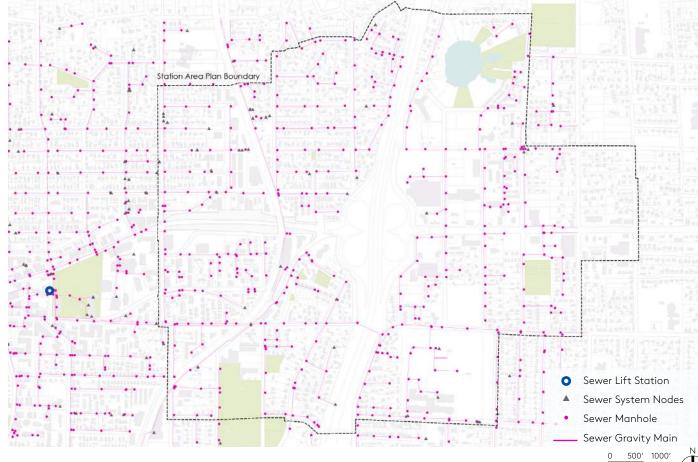
6,230 LF of force main. The wastewater system conveys water to King County's Eastside Interceptor and to the South Wastewater Treatment Plant (South WWTP) located in Renton, WA.

The majority of the proposed sanitary pipeline replacement projects listed in the City's 2018 General Sewer Plan (RH2 2018) are located within the Kirkland basin (the basin to the west of the I-405 Interchange). The project list is based on the City's assessment of existing deficiencies, safety concerns, maintenance requirements, and capacity requirements.

Existing Water Infrastructure



Existing Waste Water Infrastructure





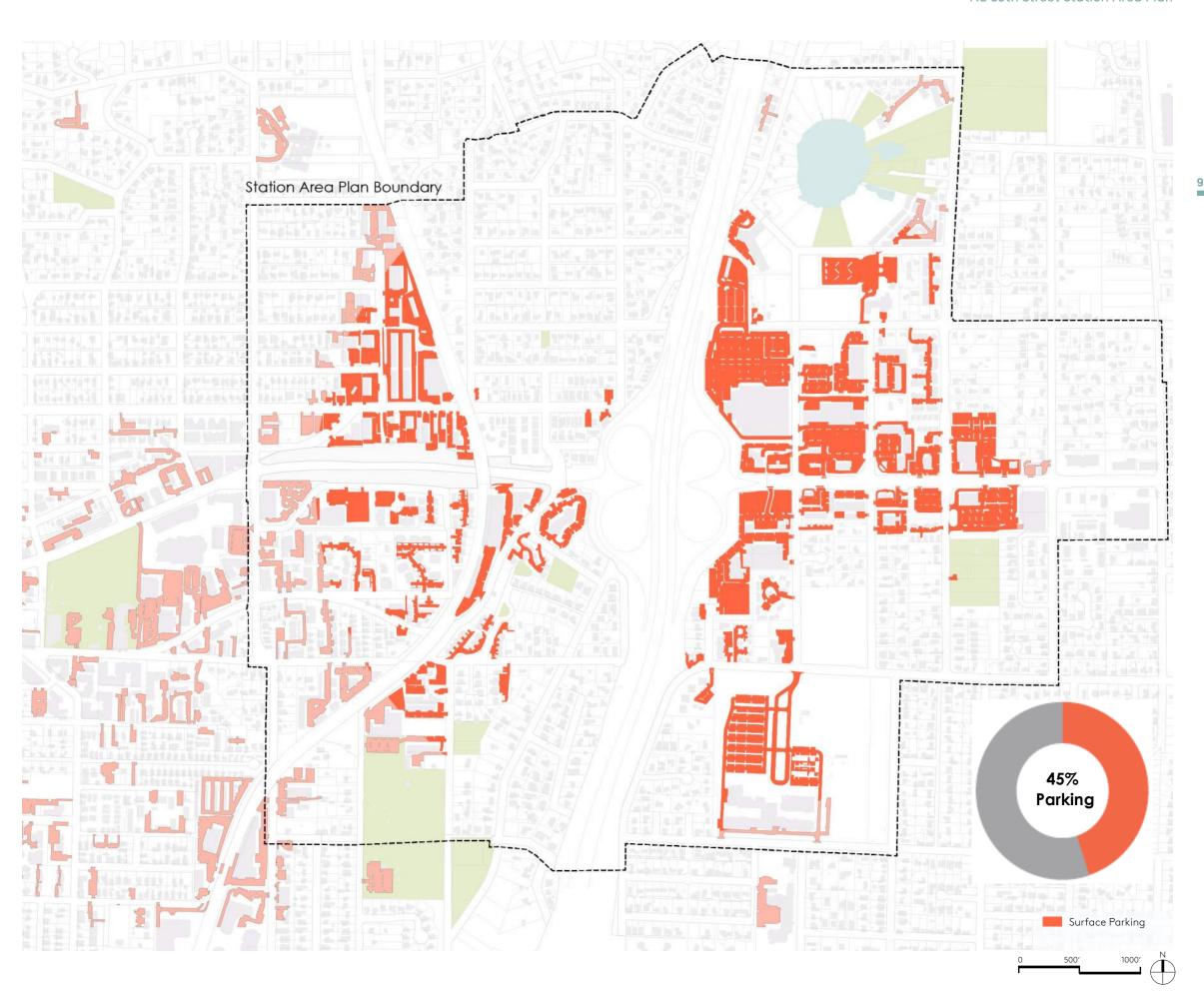
A Shift Toward People-Centered Places

A core principle of Transit Oriented Development is to maximize development types that put people, jobs, and destinations within walking distance of transit.

Surface parking discourages this by both crowding out more active uses and creating more space between development that does exist. These typical outcomes tend to make surface parking a suboptimal use for land close to transit.

Within the study area, a remarkable portion of the total parcel area is dedicated to surface parking lots. Although the big box retail in Rose Hill is one source of this surface parking, many smaller developments also display an auto-oriented site organization that features a "ring" of surface parking.

These areas of surface parking are good candidates for future development. Future parking needs are anticipated to be lower due to the accessibility of frequent transit and improved multimodal networks for greater transportation choices. Future vehicle parking demand can be met through a number of strategies, including structured parking, shared parking, district parking and management strategies such as time limits. District approaches to parking can reduce site design inefficiencies by pooling resources, coordinating infrastructure planning, and identifying the most effective overall strategies for delivery.



Station Area 2020 Market Study

A market study was conducted using February/March 2020 market and economic data that had not captured the ongoing impacts of the Covid-19 coronavirus pandemic facing local and regional economies across the country. Although the market study was conducted largely pre-Covid general key takeaways are still applicable. The Study Area represents the half-mile buffer surrounding the NE 85th Street Station. Overall, this study emphasized that within the Study Area, there is potential for increased investment and integration with the walkable center in downtown Kirkland.

Kirkland mainly comprises land uses organized around motor vehicle traffic and access. Residential uses in the northwestern portion of the Study Area include a mix of townhouses, and other medium density residential and small apartment developments. In addition to a review of the existing low- and mid-density residential development types that are already being built in the Station Area today, three distinct types of real estate products were also studied for potential market feasibility and their ability to accommodate future residential and employment growth:

- Office commercial.
- Retail commercial.
- Multifamily residential.

An additional real estate category that could be considered in the Study Area is institutional use. This includes schools, colleges and universities, hospital campuses, and civic or public buildings. These uses support a stable workforce, a mix of demographics, and amenities. Within the Study Area, retail space

Commercial Property in the Study Area by Type, 2020

Total Rentable SF	
Office Properties	261,875 (39%)
Retail Properties	414,813 (61%)

Sources: Costar, 2020; BERK, 2020

OFFICE

takeaways including:

• There is a regional demand that is growing for office space on the Eastside.

forms the bulk of the commercial property, with only

39% of space in office use. This report covered a few key

- Within downtown Kirkland the office market is strong with high rents per square foot and low vacancy rates below 5%.
- The office market of the Study Area offers a lowercost investment opportunity to build on existing momentum for a growing tech center in Greater Downtown Kirkland.
- The addition of supportive amenities could attract additional office investment such as higher walk score that provide convenient access to errands and meals.

Residential Property in the Study Area by Type, 2020

Total SF	
Multifamily Units	164, 696 (3%)
Single Family Lots	5,834,339 (97%)

Sources: Costar, 2020; BERK, 2020

RETAIL

- A variety of services are auto oriented within the Study Area.
- There may be opportunities for more retail as part of new development because of low vacancy rates as well as increased demand for office space.

MULTIFAMILY RESIDENTIAL

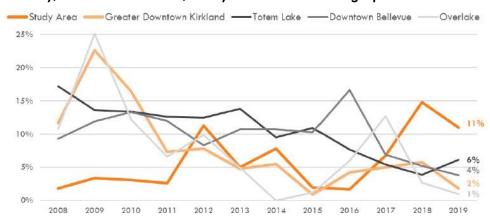
- Multifamily buildings in the Study Area are low-rise and 30 units or less (show image below exhibit 25).
- Home values within the study Area have more than doubled between 2010 2019.
- Currently, 60% of the Study Area is zoned for low and medium density residential development.
- Increasing residential density with more multifamily development will enhance the City of Kirkland's station area's capacity to leverage mobility investments.
- Regional case studies and national research shows evidence that Bus Rapid Transit investments lead to increased development activity, particularly when paired with complementary policy initiatives.

Base Rent per Square Foot, Office Commercial, Study Area and Peer Geographies, 2008-2019



Sources: Costar, 2020; BERK, 2020

Vacancy, Office Commercial, Study Area and Peer Geographies 2008-2019



Sources: Costar, 2020; BERK, 2020

Development trends

Kirkland is in the midst of a period of significant growth. This growth has taken shape in the form of both large scale developments as well as smaller infill projects in existing neighborhoods.

Three major recent projects are relevant for this study. Kirkland Urban, located just outside the current study area on Central Way, is a large mixed use development with a proposed build out of 925k sq ft of office, 50k sf of general retail and a 55k sf grocery store. Together with smaller development across the street, it contributes to a more walkable, urban orientation for Central Way. Google's recent and planned expansion in Everest are another major recent project, which demonstrates the significant opportunity for increased commercial and office development as well as the flexibility of light industrial uses in the study area to adapt to more urban uses.

Another major project is the Rose Hill mixed use development, 1.3M sq ft proposal with 870 housing units and 80,000 sq ft of retail. This project reflects many of the trends seen elsewhere in the region towards redevelopment of large strip-commercial parcels into more walkable, urban development. Also within the study area are a number of smaller infill developments, particularly on the Northwest side of the interchange. These kinds of smaller scale projects can be an important way of transitioning from larger new development to existing neighborhoods.

Project	Description*
1 Google Campus	Office space :375,000 sf
	at the campus
•••••	Total proposed buildout: 1.3
2 Kirkland Urban	million sf Office : 925,000 sf
	Commercial space : 218,000 sf
	Residential space : 172,000 sf, 185
	housing units**
3 Rose Hill	Total project size: 1.3 million sf.
	Residential space: 870 housing
	units
Sources:	Ground-floor retail :84,200 sf
Sources.	

^{*}City of Kirkland: https://www.kirklandwa.gov/



^{**}City of Kirkland

Urban Design Analysis

The urban design context for the study area today reflects a mix of conditions, from big box strip commercial and autooriented corridors to new infill residential and established neighborhoods.



NE 85th St Corridor - NE 85th St is an important east/west connection. Its auto-oriented character often lacks sidewalks on the western side, instead featuring a dense tree canopy, and lots that turn their back on this important corridor.



Industry

Industrial areas adjacent to 85th feature large parcels, close proximity to the future station, and potential opportunities for development or new investment. Many are currently important locations for small businesses.



New Infill

Townhouses, small apartments, and other mediumdensity developments are creating transitions from single family neighborhoods to larger developments typically associated with TOD.



Highway Barrier

I-405 acts a major barrier, limiting east/west connections, discouraging adjacent development opportunities, and contributing to noise and air pollution.



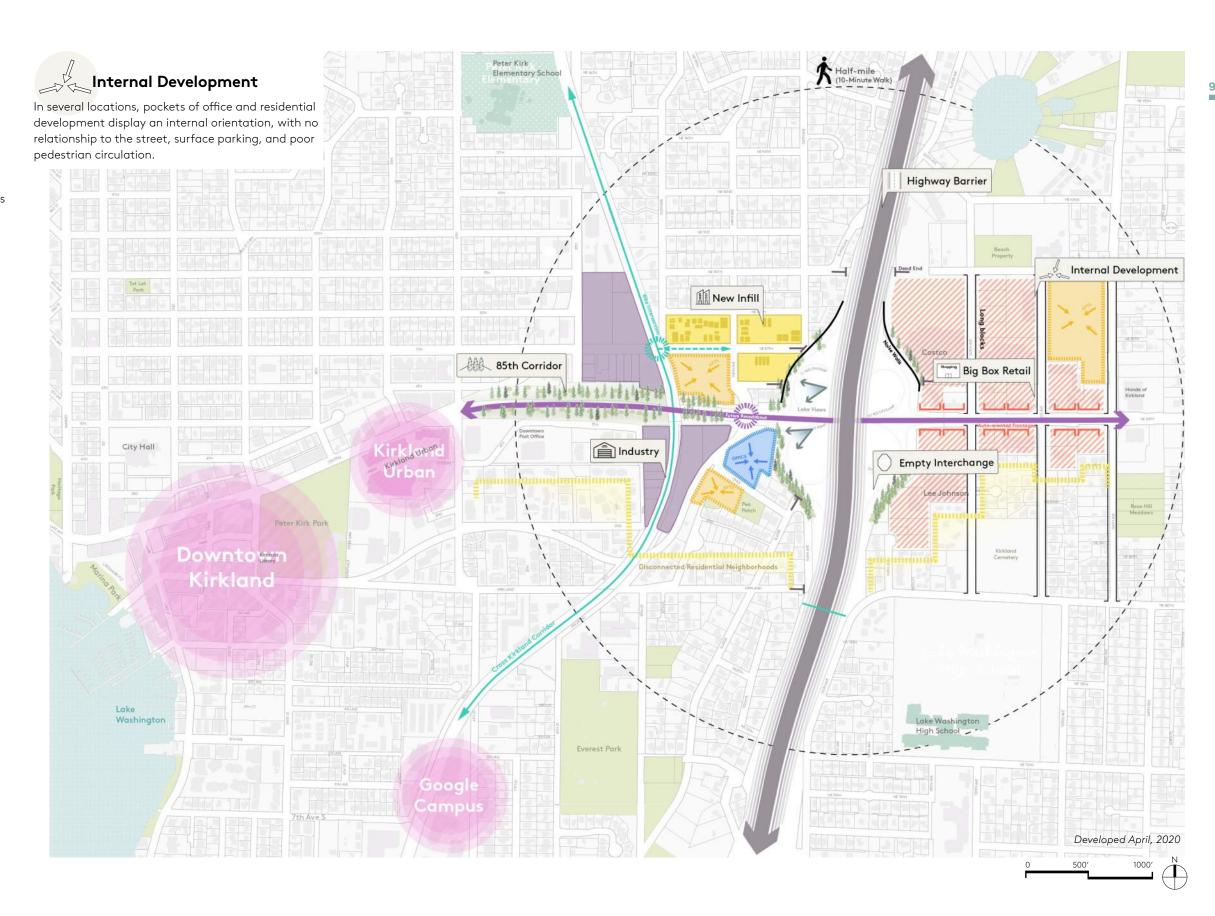
Empty Interchange

The interchange geometry results in large underutilized open spaces designed to be experienced by vehicle.



Big Box Retail

The Rose Hill business district is an important economic engine and activity center for the city. Characteristics include extensive surface lots, superblocks, and autooriented streets and public realm.



Station Area Plan Elements —

100

102

Community Benefit Strategies —

Planning for Community Benefits

To achieve the project objectives of promoting opportunity and inclusion with future growth, as well as sustaining quality of life for existing and new neighbors, a Community Benefits policy framework and strategy have been developed. Priority community benefits were chosen for this project based on community feedback, City Council and Planning Commission direction, and initial findings from the DSEIS and 2020 Opportunities and Challenges Report. They include affordable housing, schools, parks and open space, , sustainability, and mobility.

How can the public receive benefits of growth?

Along with planned growth comes the opportunity for public, private, and other investments and improvements in the Station Area. Rezoning and updated policies in the Station Area will change the amount and type of development that is allowed, and what baseline requirements will be expected. This new development capacity will be supported by public investments and partnerships for infrastructure and services to sustain amenities for the community. As upzoning may increase the potential value of private land, a portion of this potential value can also be leveraged for public benefit. Overall, the Station Area itself comes with a tremendous opportunity of intrinsic public benefits which include, but are not limited to, enhanced transportation choices, improved and more community gathering places and environmentally sound growth patterns that support the overall vision to the Station Area.

Public Projects will support infrastructure and services including transportation and mobility, parks and open space to sustain quality of life for the public. This plan identifies a range of public project opportunities, which are coordinated through the City's capital planning process and other city-wide planning efforts such as the Parks, Recreation, and Open Space Master Plan and the Transportation Master Plan. These projects may include improvements or enhancements to existing public assets and services, or the creation of new public infrastructure.

Private Developments

Through baseline requirements and the Form-Based Code, community benefits can be realized through private development. Beyond these baseline benefits, there is also potential for additional public benefits or amenities that can be incentivized. This can occur through tools like incentive zoning programs that allow additional development in exchange for the developer providing community benefits. Under a typical incentive zoning program, new zoning establishes a base development allowance in each zone. In exchange for additional development capacity, the developer provides public benefits through fee-in-lieu or direct provision of the amenity. In the Station Area, the incentive program would not allow development heights above the maximum heights adopted in the Preferred Plan Direction.

Partnership Opportunities can advance priority community benefits through program alignment or potential co-benefits. P3's, or Public-Private Partnerships, are examples of collaboration across sectors or organizations to achieve aligned goals. There is potential to advance some of the plan initiatives, community benefits, and long-term vision through such partnerships, especially around the topics of schools, education, and childcare; affordable housing and workforce development; as well as sustainability, climate action, and health and well-being initiatives.

Community Benefits Icons

Throughout the document the following five community benefit icons are called out. Each denotes the topic in which the SAP provides benefits to the broader population:

Schools and

Education

Affordable Housing



Sustainability, Climate Action, and Resilience



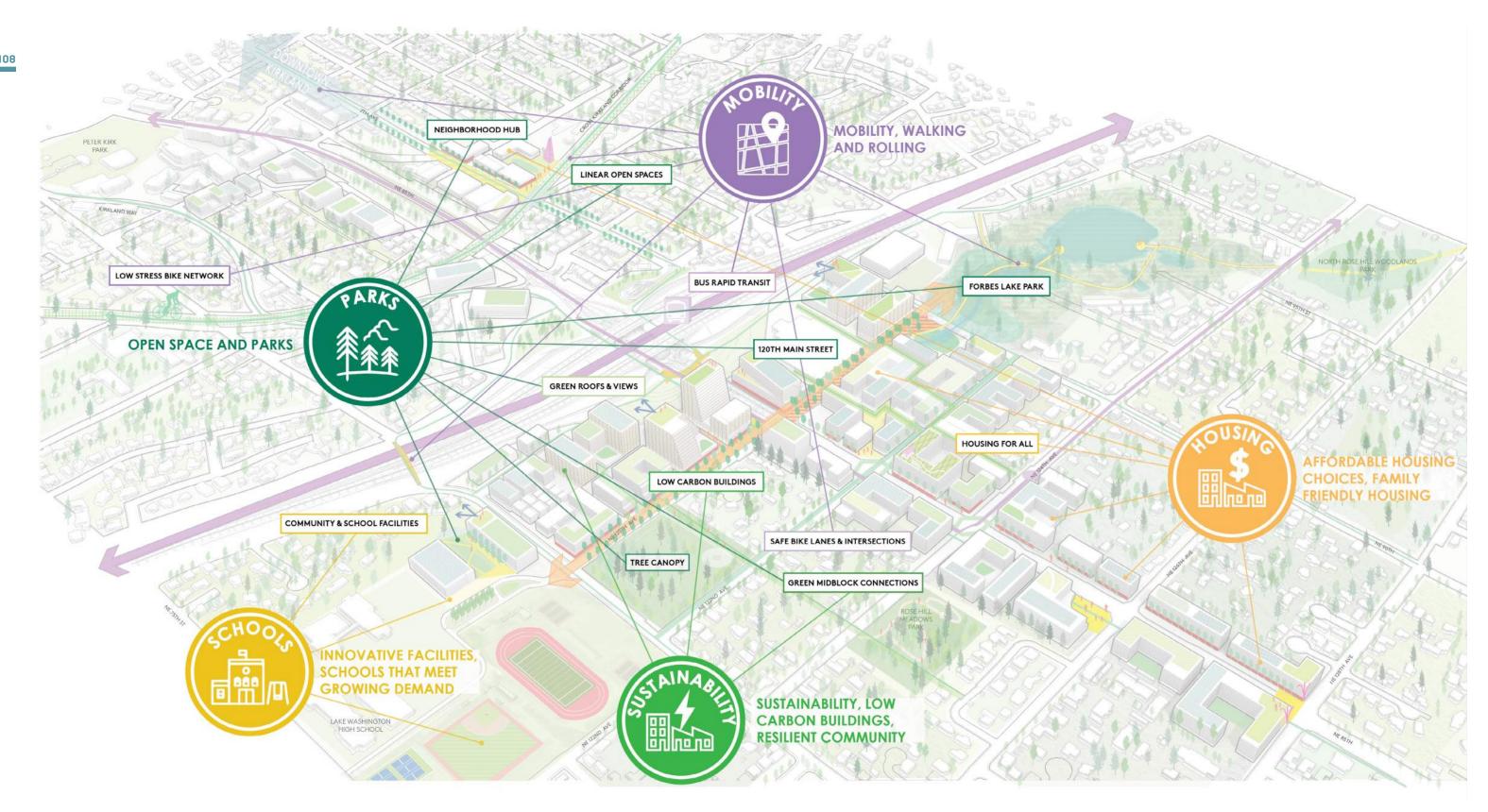
Open Space and Parks

Mobility: Walking and Rolling





Community Benefits



Affordable Housing



The Preferred Plan Direction adopted by Council identified a vision for plentiful affordable housing in the Station Area, and maximizing affordable housing options in the Station Area was a priority in all phases of the planning process. Future redevelopment in the Station Area will be subject to the City's existing inclusionary zoning requirement that at least 10% of new multi-family units are affordable – which could result in over 600 estimated new affordable units (of the studied capacity for up to 6,243 additional housing units). Additional strategies to promote and incentive affordable housing production in the area were identified in the FSEIS, and included:

- Leverage regional partnerships (e.g., A Regional Coalition for Housing (ARCH)) to add affordable housing opportunities in the Station Area,
- Create density bonuses that prioritize affordable housing,
- Establish minimum requirements for family-size units,
- Require development to provide a minimum number of activity units (i.e. housing units or jobs),
- Commercial linkage fees.

City staff has coordinated with ARCH to discuss the mitigation options that the City could consider to maximize affordable housing opportunities in the Station Area. ARCH will be a key partner in assisting the City with investing resources to produce affordable housing. To the extent that the City receives cash payments toward affordable housing rather than units being built directly by developers, it will be important that those funds be directed to affordable housing projects located in or near the Station Area. New affordable housing projects in the Station Area will be accessible and connected to the region via transit, and should also be targeted to support housing choices attainable for people that work at a range of existing and new jobs in the district.

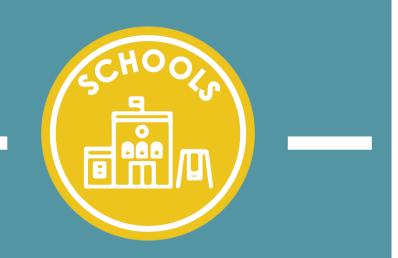
In the economic analysis for the incentive zoning program, the project team has evaluated options for base and incentive housing requirements, including: providing more than 10% (current inclusionary zoning requirement) of units as affordable, and providing units at deeper levels of affordability. The project team believes that commercial linkage fees could be a valuable tool and should be evaluated in the future. To support evaluation of commercial linkage fees as a tool for the future, the City should continue to work with ARCH to identify legislative changes that might better address such fees being mandatory and applying on a jurisdiction-wide basis.

More than 30% of people who work within the NE 85th Station Area make a salary below the living wage. Additionally, 16% of employees within this area make below the federal poverty guidelines this imbalance of equity regarding the types of jobs available in the area should be addressed. Opportunities to support linkage fee programs and workforce development in order to encourage more jobs for residents in Kirkland will be important, especially jobs that offer higher income. Workforce training programs may be possible along the 120th corridor connecting high tech jobs and the schools. The plan also seeks to maximize affordable housing by providing additional development capacity at a site owned by the King County Housing Authority, which could be redeveloped in the future to provide additional affordable units.





Schools and Education



As part of the Final SEIS for the Station Area Plan, School mitigation options were identified to address the anticipated student growth associated with the increased density in the district. The Station Area Project team has coordinated with Lake Washington School District ("LWSD") throughout the planning process to discuss student generation projected with growth in the Station Area, and to collaborate around ways the City can help the district address school capacity. The final plan anticipates that the City will continue coordination with LWSD to explore creative solutions. The project team has identified the below ways to address school capacity in the plan, with the opportunity for future solutions to be identified.

1. Increase development capacity on existing school sites:

The The major existing school site in the Station Area is Lake Washington High School. The Preferred Plan Direction contemplates increased density on the site by incorporating it into a future Civic Mixed Use regulating district in the SE quadrant of the Station Area. The Preferred Plan Direction established an increased maximum height allowance up to 75' on portions of the site. Under the allowed height of 75', up to 5 stories could be accommodated on that land area, including structured parking above, or below, ground, which could multiply the building square footage and generate sufficient space to accommodate long-term

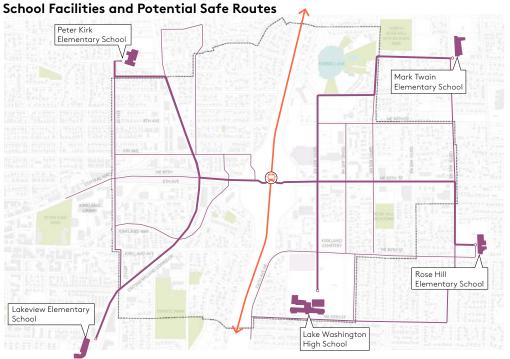
needs. LWSD would need to further study the concept of co-locating different grade levels on this site and issues related to parking and traffic management related to urban school concepts.

In addition, on March 1, 2022, the City Council approved the following item for the Planning Commission work program:

Growing School Capacity: The City is consistently receiving feedback from the community and the Lake Washington School District (LWSD) about the capacity issues at current District facilities. This Planning Work Program project, building on a collaboration between City staff, LWSD, and University of Washington urban design students in 2018 (that addressed this issue on a separate site), would partner with the District to explore potential development constraints on existing District-owned properties that create barriers to adding student capacity, and then undertaking code amendments to reduce or eliminate these barriers. Examples might include height, setbacks, parking, and permitting processes.

2. Explore development bonus incentives for provision of school space in new development:

Staff evaluated the feasibility of providing bonus density incentives in two broad categories: commercial development and residential development.







Commercial Dedication of School Space

Based on recent office building sales in the Spring District and downtown Bellevue – areas with similar zoning and building quality to what is expected in the NE 85th St SAP – the value of built space that could be dedicated to school use could be between \$750-\$1000 per SF.

Residential Dedication of School Space

Another option that staff explored is providing development bonus incentives for provision of school space (likely for Pre-K programs) in new residential development of sufficient size to support such facilities. These would likely be located within ground floor commercial spaces which may be economically beneficial to project applicants. Depending on factors such as location and size of these commercial units, these spaces sometimes do not provide significant rental income. Combining this with the possibility of requiring less parking for a Pre-K use as compared to general retail or restaurant, there could be a net economic benefit to the project.

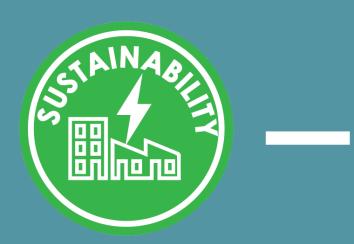
3. Define active frontages or required retail space to include educational uses:

The form-based code will regulate future development in the Station Area. In order to allow flexibility for more types of educational space to be provided in the future, the Preferred Plan Direction included draft regulating districts that would allow educational ("civic") uses in all zones. Additionally, the form-based code will establish allowed frontage types, and land uses, along each street. Where those frontage types may require an active use, educational uses will be included in any definition of an "active" use and/or frontage type.

4. Promote partnerships to encourage shared facilities in the Station Area and/or optimize utilization of shared use agreements:

As development interest in the Station Area arises, staff has coordinated with the private sector and the school district to encourage conversations to explore opportunities and barriers. These connections should help the City and the District understand the most effective partnership strategies based on shared interests. These partnerships could take the form of shared space agreements or lease arrangements as discussed earlier. City staff will continue to connect the District with potential partners as opportunities arise.

Sustainability, Climate Action, and Resilience

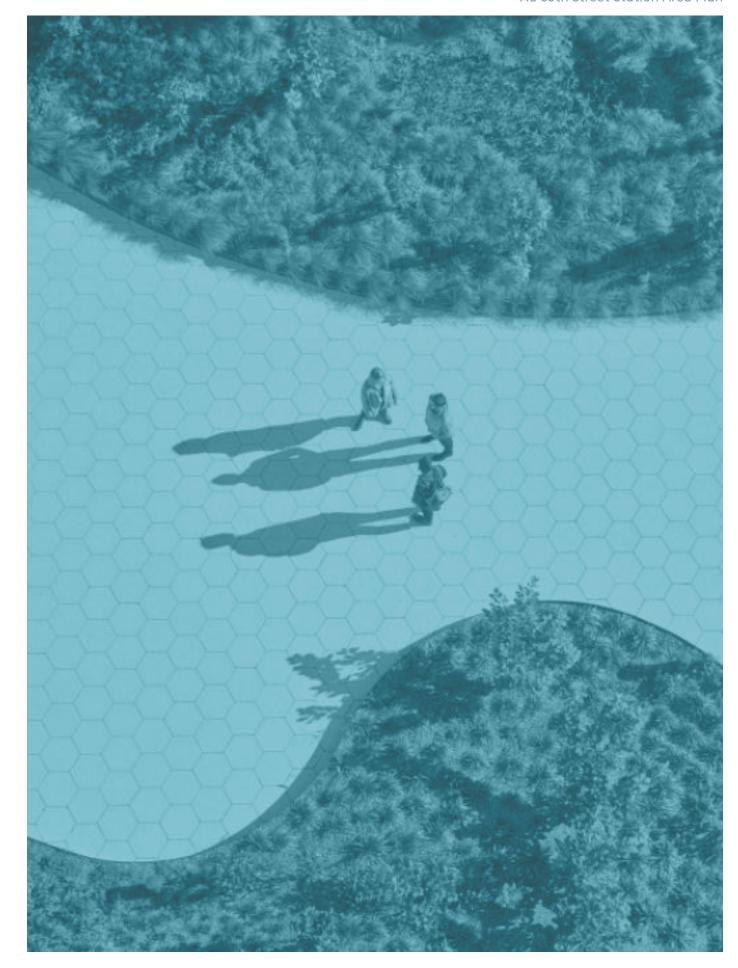


The Station Area is envisioned as a demonstration district that maximizes opportunity for innovation and community benefit around climate action, resilience, and quality of life. The scale and unique opportunities of a mixed-use, transit-oriented district provide a tangible way to move the needle on the City's broad sustainability and resilience goals. Because vehicular trips are one of the major drivers of greenhouse gas emissions, shifting towards more transit and active transportation options will play an important role in reducing emissions. Beyond these fundamental strategies that have Sustainability co-benefits, a Green Innovation Strategy for the Station Area supports innovation in Building Performance, Ecosystem / Green Infrastructure, and Energy / Decarbonization to maximize community benefit for Kirkland's existing residents and employees and new members of the community.

Sustainability Framework Summary

The purpose of this Sustainability Framework is to advance the City's objectives and Sustainability Master Plan with the Station Area as a demonstration district that maximizes opportunity for innovation and community benefit around climate action, resilience, and quality of life. This Framework is aimed to complement the Station Area Plan and envisions a 'future-ready' district that is responsive to quickly changing climate conditions, that takes advantage of the scale and unique opportunities of a mixed-use, transit-oriented district, and that recognizes the pace of market transformation and does not preclude future innovations.

For more information refer to Chapter 10.



Parks and Open Space



Open space and parks are inherently important to health and wellbeing of the community, and provide vibrancy in urban settings, and needed amenities with increasing density as is expected to occur within the Station Area in Kirkland. They function as an essential service, supporting social resilience and the setting for people to gather and connect, to share culture and art. There are opportunities to enhance the amount and types of open spaces provided within the study area, as well improve connections to open space within, and outside, of the Station Area. The City should think creatively on the use of publicly owned land and potential for shared use agreements, as well as how to include open space elements that would support the population within smaller urban footprints to strategically consider smaller, park-like areas within new developments. To supplement this approach, gaps identified in larger scale neighborhood or community parks could be accommodated through enhancements and improved access to existing parks nearby the Station Area, as well as through exploring community access to recreation facilities and spaces within the Station Area.

Coordination with the PROS Plan

On a parallel timeline with the Station Area Plan, the Parks and Community Services Department has been updating the PROS plan, both of 2022. This updated PROS will set the strategy for the City's investments and includes elements related to serving the Station Area. As discussed later in the document, the process of funding and executing these projects will be done as part of the existing capital improvement program (CIP) and capital facilities plan (CFP).

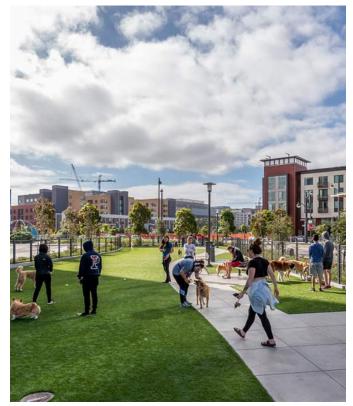
Pocket-parks and amenity considerations that are small in scale have the potential to support community gathering spaces and recreational opportunities to homes. Examples of programming that can increase the utility of open spaces for people to connect include the following:

- Linear Parks
- Dog Runs
- Plazas/Civic Spaces
- Playgrounds
- Exercise Stations

The Station Area Plan provides a unique opportunity to coordinate within the PROS Plan, as well as consider policy changes to the LOS opportunities to provide new open spaces. These approaches can be taken into action in the near term. Options explored through the Station Area planning process include:

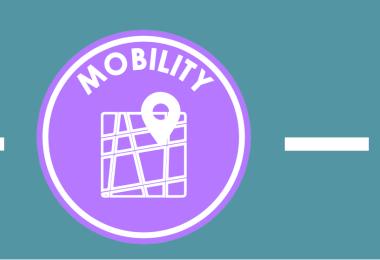
- Explore the ability to integrate parks and open space through planned infrastructure investments in the public right-of-way, including street and utility improvements,
- Leverage existing spaced by enhancing existing neighborhood parks, open space around Forbes Lake, and the Cross Kirkland Corridor, these enhancements are identified within Chapter 6.0 Parks, Open Space and Environment.
- Consider the role of school facilities and non-City parks, as well as existing publicly owned parcels in helping to provide recreation opportunities and infrastructure advancements (including excess WSDOT right-of-way for open space benefits such as stormwater treatment, natural areas, and canopy restoration.
- Consider Community Park options that may include supporting the re design of Peter Kirk Park and renovation of other community parks to increase capacity.

For more information refer to Chapter 7.





Mobility: Walking and Rolling



This Station Area Plan creates a rich network of mobility options that not only connect transit users to and from the future bus rapid transit station but allow movement throughout the station area to connect downtown Kirkland, Redmond, and beyond. Improved sidewalks and dedicated bikeways ensure that walking and biking in the station area is safe and pleasant. Capacity is added to key intersections on major arterials through strategic widening and signal operation changes to avoid gridlock. These improvements are linked to overall urban design and mobility goals for each corridor. For instance, on NE 85th St a wide landscaped furnishing zone, protected bikeway at the sidewalk level, and wide generous sidewalks are appropriate infrastructure investments to create a sense of safety and a pleasant environment for walking and biking along a major thoroughfare that connects vehicle and transit traffic to the interstate. On smaller collector streets such as the 7th Ave/NE 87th St corridor, sidewalks with sufficient clear pedestrian zones, buffered bikeways, and narrower vehicle lanes proportionally relates the street to a more intimate, residential character.

Green mid-block connections help break down large blocks into more walkable distances and a pedestrian scale environment. Finally, increased transit service with dedicated lanes through the interchange and flexible parking policies balance the transportation needs of the station area.

Active Transportation Plan Coordination

The Station Area Plan's transportation analysis and study has been running alongside the City of Kirkland's ongoing work to update the Active Transportation Plan (ATP) which will be finalized in 2022. The update to the ATP reaffirms Kirkland's commitment to a multi-modal system of transportation choices by providing network and infrastructure improvement recommendations to enable people of all ages and abilities to safely walk, bike, and roll. Specifically, the Active Transportation Plan outlines three main goals:

- 1. Create a safe, connected pedestrian network where walking is a comfortable and intuitive option as the first choice for many trips.
- 2. Create a connected bicycle network that accommodates people of all ages and abilities to get to destinations such as activity centers, parks, and transit.
- 3. Encourage and incentivize more people to walk and bike and encourage safe behavior for all users of the transportation system.

Network recommendations made as part of the ATP update have been incorporated into the active transportation network vision for the Station Area Plan.

For more information refer to Chapter 8.



Vision and Urban

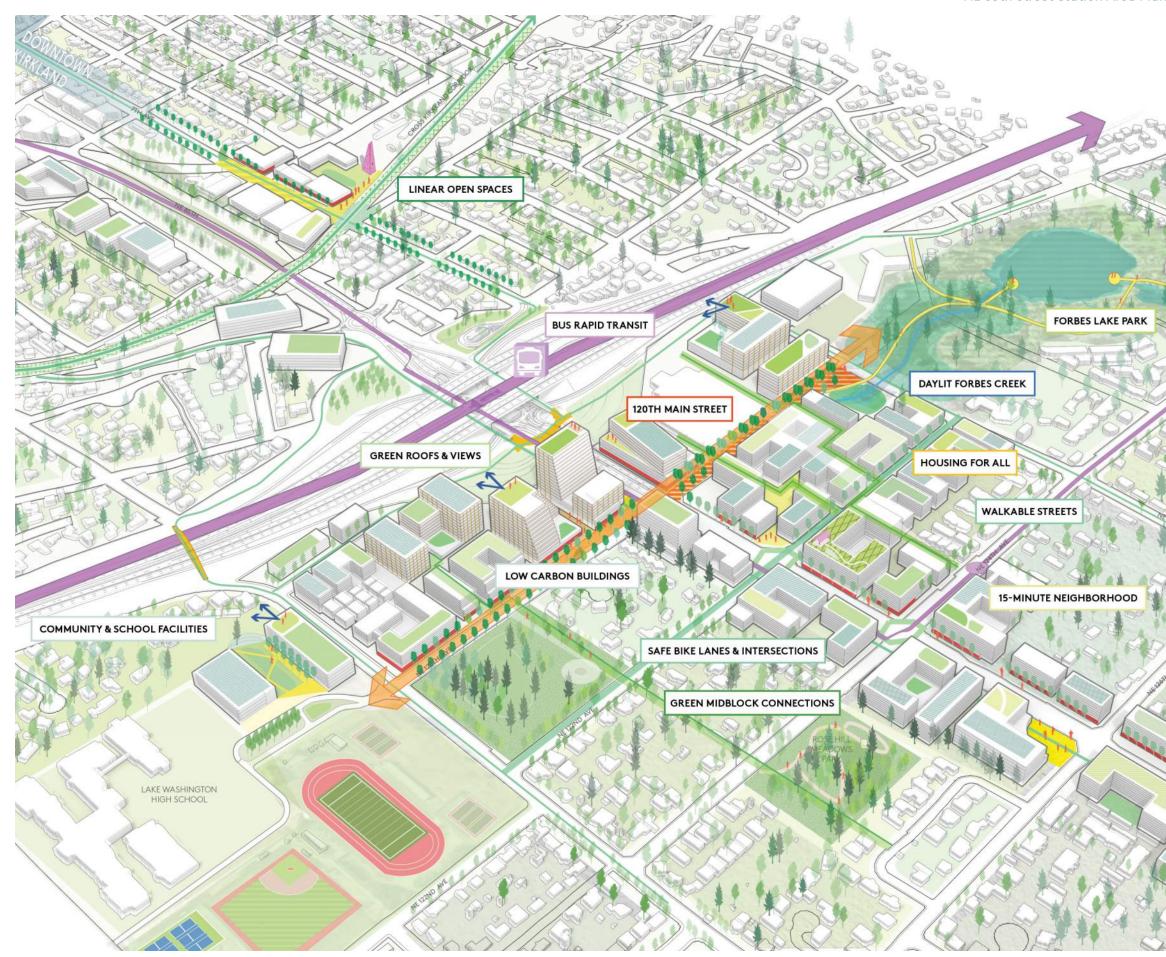
Design Framework—

This Station Area Plan envisions a vibrant, mixed use district that is a model of innovation, equity, and quality of life. Development focused around the future station ensures high ridership and supports last mile connections via walking, biking, and transit. Buildings transition in scale as they approach existing neighborhoods to respect the established context while encouraging new jobs and homes. A mix of housing types reflects the needs of a diverse community for all ages and stages of life, at a variety of income levels.

A robust public realm is punctuated with key focal points for retail and services along NE 85th St, 120th Ave NE, and 7th Ave. These focal points provide increased opportunities for pocket parks, green infrastructure, and other amenities that enliven the street. Signature public spaces like Forbes Lake Park and future plazas in large developments create spaces for people to connect with nature and each other. Within development a combination of courtyards, green roofs and other outdoor areas supplement the public realm. Flexible standards for educational and civic spaces encourage creative solutions to provide capacity for students to learn and the community to gather or recreate with future growth in the district.

Finally, this district's innovation is shown in the ambitious sustainability features woven into the district. Community solar power generation, district-scale energy networks, and low-carbon building technologies all reduce the climate impacts of this district. Similarly, green infrastructure, new tree canopy, and ambitious low water use buildings improve the ecological health of the district and its residents.







Urban Design Framework

Alongside the vision for the Station Area Plan is an urban design framework that establishes a set of overarching strategies to shape development and investments in the district in the future. These strategies are reflected throughout subsequent chapters of the Station Area Plan as well as implementation tools like Form-based Code and Design Guidelines.

How should we grow?

Focus Near Transit



1. Focus growth in inclusive housing and jobs near transit

There is a mutually supportive relationship between transit ridership and the amount of housing, jobs, and services near transit. The Station Area Plan designates the areas closest to the future BRT Stride station as priority locations for increased development. Not only are these areas prime opportunities to broaden the mix of jobs and housing choices within the station area, this strategy focuses growth in a more sustainable,

compact form. In addition, the areas closest to the future station on the east side of I-405 are reserved for taller office development. This serves a dual role of providing the potential for improved commutes and focusing growth in the City where residents and employees have the best access to high-capacity transit and using larger office buildings as a buffer to protect residences from the noise and air pollution that come from high volume roadways like I-405.







A Strong Public Realm Spine



2. Establish a strong public realm network and transit-oriented community that puts people first

The vision for the station area includes a robust, vibrant public realm with a mix of active ground floor uses, generous sidewalks, and improved tree canopy. The urban design framework identifies key streets where a combination of public and private investments will create focal points and destinations for the district, the city, and the region. These include enhancing NE 85th Street to a more urban street that becomes a place

for people to engage, supporting retail-focused streets like 120th Ave NE near Forbes Lake, and neighborhood hubs like the 7th Ave corridor in Norkirk. Each of these focal points brings together recommendations around mobility, public realm, land use, sustainability, and building massing.

A Network of Mobility Options

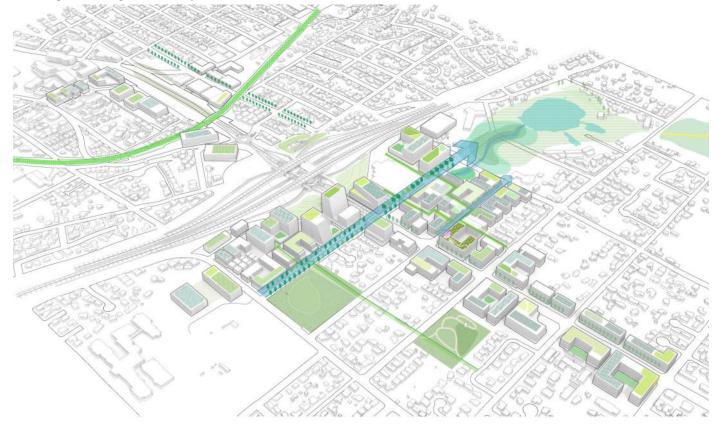


3. Connect neighborhoods together with a comprehensive, multi-modal transportation network

As a station area plan, it's particularly important to create a network of mobility options that connect transit users between the station and key services and destinations. Green mid-block connections help break down large auto-oriented blocks into walkable distances. New and enhanced sidewalks and bikeways provide safe and comfortable walking and biking

connections throughout the district. Finally, increased transit service, including the Stride BRT future King County Metro's K-line BRT, flexible parking policies, and specific roadway capacity improvements provide a multi-faceted approach to mitigate congestion and accommodate travel needs on roadways and parking demand. This holistic approach to mobility is integrated into all aspects of the urban design framework.

Leverage Existing Natural Systems and Resources

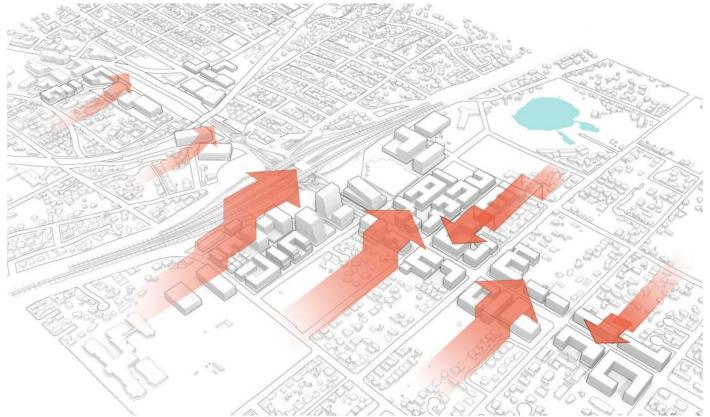


4. Leverage existing natural systems and resources, enhance ecosystem performance, and increase resilience.

Like all of Kirkland, the station area is a rich natural environment with important ecological assets and opportunities to improve the sustainability and resilience of the district. Updated policies encourage stormwater management through on-site green infrastructure like bioswales in streetscapes and within

larger developments. Street types in the form-based code will lead to increased tree canopy in the public realm, and ecological assets like Forbes Lake become the focus of a new boardwalk network and "trailhead" that's integrated into the streetscape at 120th Ave NE and NE 90th St.

Transitions in Scale to Adjacent Neighborhoods



5. Ensure appropriate development scale with transitions to adjacent neighborhoods and design regulations.

While planning for growth in the station area, supporting transitions in scale to adjacent neighborhoods is a key focus of the urban design framework. The form-based code regulates elements of massing and form to step down from larger commercial office blocks to mid-rise neighborhood mixed use

development, and eventually to smaller "missing middle" infill. Special rules for transitions, landscaping requirements, and other policies further specify how new development should respond to the existing context. Additional design guidelines and the City's Design Review process will ensure that building massing and details reflect a pedestrian-oriented district.

The Norkirk Maker District vision builds on the area's industrial character with a focus on local "maker" businesses organized along 7th Avenue and a new plaza that meets the Cross Kirkland Corridor trail.





West Character Sub Areas

The Urban Design framework is a cohesive set of design strategies used throughout the Station Area. Within the larger urban design framework, character subareas specify the unique opportunities and desired elements for each portion of the study area that build on existing assets and characteristics the community values. These subareas can inform public investments, design quidelines for future development, and placemaking.

West of 114th Ave NE, NE 85th Street is built on an elevated structure, and the topography of the area creates two distinct districts: the Maker District in the Norkirk and Highlands neighborhoods north of 85th and the Downtown Gateway District in the Everest and Moss Bay neighborhoods south of 85th . Here, the focus is supporting pedestrian-oriented districts and enhancing Cross Kirkland Corridor as the major north south connection.

Maker District

Pedestrian-oriented district building on Norkirk's character and excellent Cross Kirkland Corridor trail connections. 7th is a lively connection between the BRT drop off and downtown. The traditional mixed industrial/commercial character of the area is recognized while encouraging more urban uses supporting "maker" activities, locally-owned small businesses, active lifestyle and recreation-related private and public uses.

Downtown Gateway District

Gateway district to Downtown Kirkland via 6th St that emphasizes mid-rise residential, and office uses along 6th and important bicycle and pedestrian connections between the future Stride station and Rose Hill commercial area and Downtown Kirkland. These connections include a new bicycle and pedestrian route along NE 85th Street as well as improved bicycle and pedestrian facilities along existing Kirkland Way.

East Character Sub Areas

East of I-405, NE 85th Street is an important connector and gateway to Kirkland from Redmond. The Plan envisions NE 85th Street as a place to be, rather than travel through, that encourages people to gather and spend time in a lively public realm. It is supported by a robust mobility network that bridges existing barriers and provides safe crossings. The Forbes Lake District and Green Innovation District envision a strong public realm connection along 120th Ave NE, between North and South Rose Hill neighborhoods; and the Rose Hill Gateway District similarly envisions a cohesive public realm and safe crossings along NE 85th Street.

Forbes Lake District

A walkable mixed-use district with opportunities for mid-rise residential uses and higher intensity office uses, organized around a green main street corridor with retail and active uses combined with small open spaces on 120th that connects to Forbes Lake. Biophilic design and visible water, energy, and biodiversity strategies tell the story of this place.

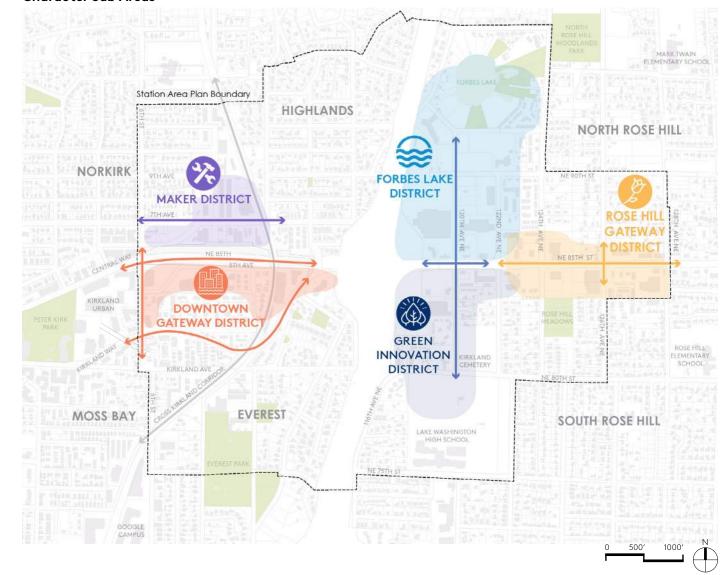
Green Innovation District

This vibrant, mixed-use district is a model of innovation and place for community, students, and the workforce to connect. It transitions from high intensity office uses near the BRT Station, to mid-rise shops and office uses, to townhouses, small apartment buildings, and civic uses. Active transportation choices, connections to green space, and walkable 120th Ave NE offer a healthy lifestyle. Existing cemetery is an opportunity for green space that provides opportunities for walking and more passive recreation.

Rose Hill Gateway District

Corridor-based gateway with a mix of active ground floors and mid-rise residential along NE 85th that focuses on creating a strong sense of arrival from Redmond with streetscape design, public art, and urban design features.

Character Sub Areas



Character Subarea Precedent Imagery







Downtown Gateway District









Forbes Lake District







Green Innovation District









Rose Hill Gateway District









Land Use and Zoning —

Land Use, Zoning Concepts and Goals

The future land use concept for the station area focuses on two main ideas: establishing mixed use areas of various intensities in currently commercial or industrial zones and introducing lower scale missing middle housing types in those existing residential areas which are closest to the station. This land use concept is the basis for the form-based code regulating districts. The Station Area will facilitate existing City allowances for Missing Middle Housing typologies.

All inclusive neighborhoods with nodes of commercial gathering places and essential services in walking distance should be facilitated to create 15 minute neighborhoods. While existing businesses and households should be retained and the City could provide incentives for development that help to retain these key spaces.

The Form-Based Code

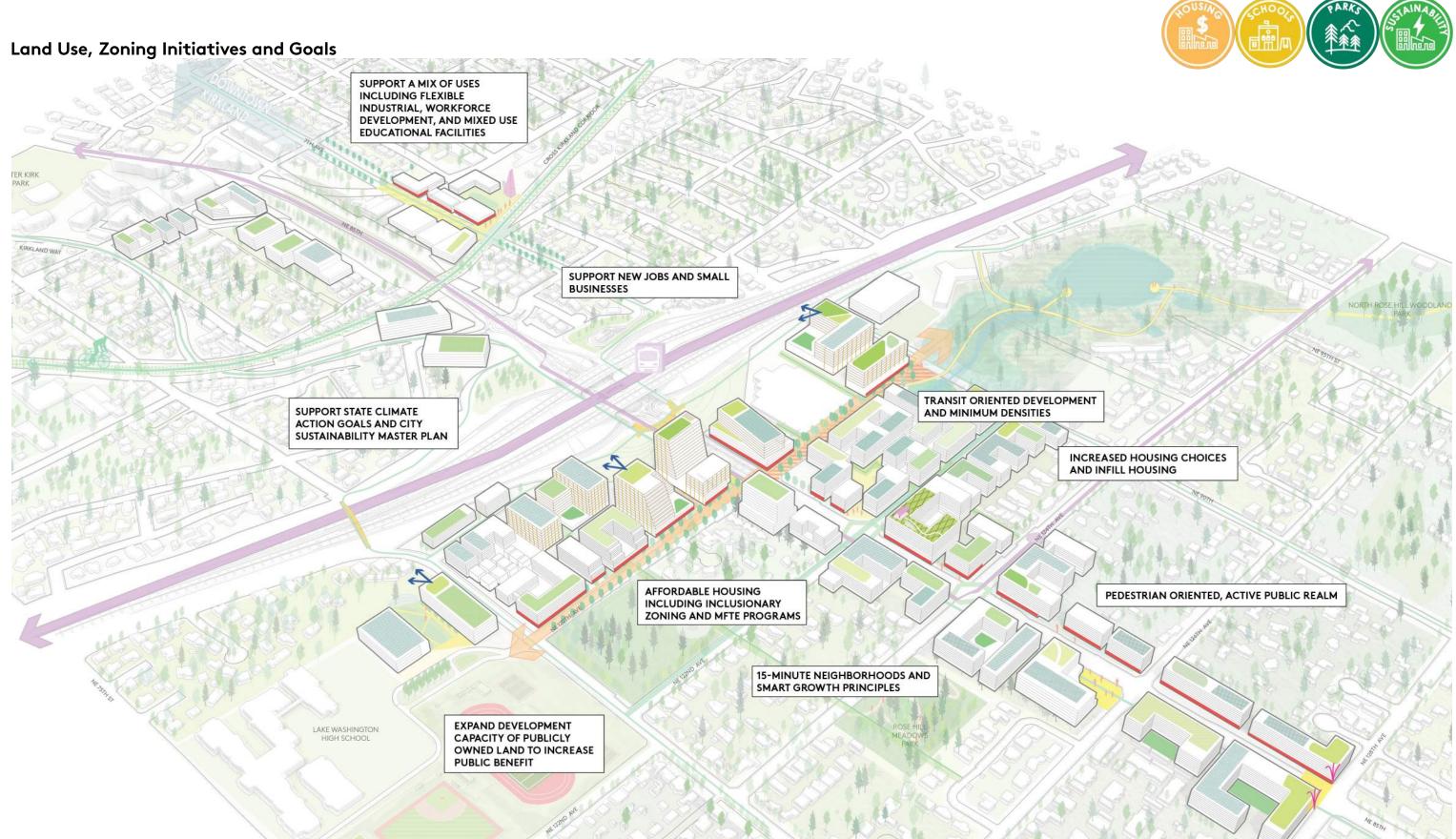
This land use concept is the basis for the form-based code regulating districts. Design standards implemented through the Form-Based Code will ensure compatible development and transitions. The form-based code will also help to encourage building designs that break up the massing to avoid monolithic forms, particularly for tower style developments. Limits on the footprint of tower-style development will regulate relationship of building massing to site open space. Design of exterior building illumination will reduce light pollution and spillover into adjacent, lower density neighborhoods outside the station area, including the use of shielding lighting, ground level fixtures, or other screening techniques.

All inclusive neighborhoods with nodes of commercial gathering places and essential services in walking distance should be facilitated to create 15 minute neighborhoods. Existing businesses and households should be retained and the City could provide incentives for development that help to retain these key spaces.

Green Innovation and Building Standards

Within the Form-Based Code districtwide green building standards, incentives and credentialing programs will be implemented. Retrofits to existing buildings to reduce energy use will also be encouraged. These goals will help to reduce energy consumption by retrofitting existing buildings with any renovations or upgrades.





Growth Framework

Proposed Growth

The overall Station Area Plan growth framework developed in 2020 as a basis for the Draft Supplemental EIS alternatives is aimed at supporting an inclusive, transit-oriented district that supports existing residents and businesses while offering more choices for living, working, learning, and visiting the area. As a transit-oriented community, the station area will accommodate a significant share of the City's growth, in support of city and regional plans, and add more jobs to improve the balance of land uses in the area and the City as a whole. The intent ofhis strategy is to:

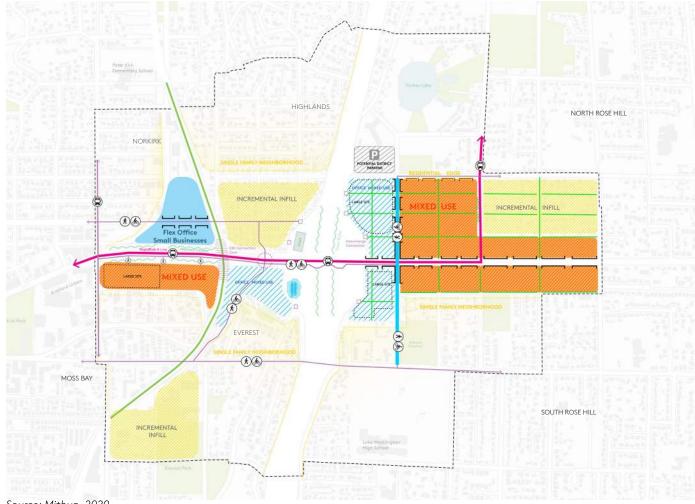
- Optimize for workforce and affordable housing.
- Attract new jobs to foster economic activity and meet citywide targets.
- Include commercial-focused development across different areas of the Study Area.
- Foster an environmentally sound land use pattern that helps achieve the City's sustainability goals.

The Growth framework responds to the public comment heard during the DSEIS comment period and the May 26, 2021 Council Listening Session.

The final Growth Framework only proposes increased allowable heights in areas that provide clear benefits to the community and take advantage of regional transit connections. To that end, several areas where height increases had been proposed as part of DSEIS Alternative 2 and 3 have been removed from consideration in the final growth framework. These include areas that are unlikely to redevelop due to market forces, are limited by development feasibility, or are constrained by other factors. The final growth framework is closest to DSEIS Alternative 2, with lower employment to create a better match between jobs and housing in the future.

In alignment with the Station Area Initial Concepts Growth Framework, a few areas of greater capacity for change as compared to existing conditions are included. These are focused around the BRT node and the Cross-Kirkland Corridor, including two areas in Rose Hill nearest to the future BRT station: the mid-rise office designation in the northeast quadrant and the high intensity office designation in the southeast quadrant; and the flex industrial - residential capacity in the Norkirk LIT area in the northwest quadrant. Because of this greater capacity for change, these areas receive greater study in some studies regarding fiscal impacts and potential for community benefits. It is important to note that development will likely occur incrementally, and in all cases, the analysis reflects a hypothetical assumption of the total allowed development in the June Alternatives and is not meant to presuppose decision- making by private landowners or the actions of the market. References to the current ownership have been included to assist the reader in identifying the locations that were evaluated.

Study Area (June 2020): initial growth concept that served as the basis for the draft SEIS alternatives



Source: Mithun, 2020

Preferred Plan Direction (2044)	
Households	8,152
Employment	22,751

Totals refer to 2044

Growth Expectations (2044) - GSF		
GSF Residential	4,990,000	
GSF Office	5,260,000	
GSF Retail / Restaurant	900,000	
GSF Flex / Industrial	150,000	

Totals refer to 2044



Future Land Use Map

Regulating Districts are intended to translate the vision and goals documented in the NE 85th Station Area Plan into standards that define allowed uses, lot parameters, building massing, and height controls. Regulating districts consist of two elements: Regulating District Standards that specify development standards for each district, and a Regulating Plan that maps these districts to specific parcels.

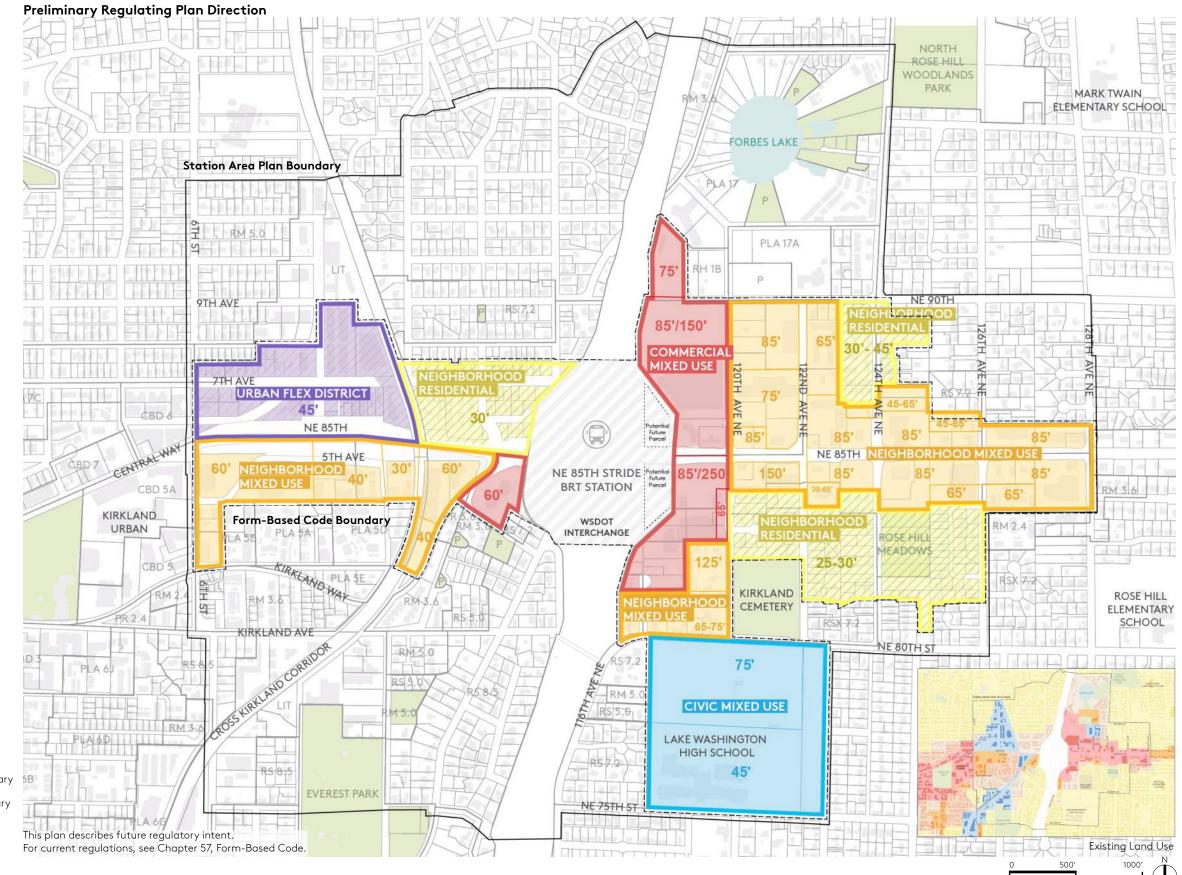
The Regulating Plan maps the applicable areas of the form-based code area with the appropriate regulating district designation. Each designation includes two parts: a district designation followed by the height subdistrict for that zone. Heights are stated in terms of maximum base and bonus heights. For instance, NMU 85/150 would reflect a base maximum height allowance of 85' and a bonus maximum height of 150'. The Incentive Zoning section of the Form-based Code will include details on utilizing the bonus allowances.

Mixed use areas are represented in the formbased code regulating plan as Commercial Mixed Use, Neighborhood Mixed Use, Civic Mixed Use, Neighborhood Residential, and Urban Flex districts. The Commercial Mixed Use district does not allow residential and focuses on institutional and commercial land uses, with active ground floor uses on key streets. Neighborhood Mixed Use and Civic Mixed Use districts allow for a combination of residential, institutional, and commercial uses, with different height subdistricts established. The Urban Flex district allows for light industrial, some residential, and commercial uses consistent with a neighborhood scale, pedestrian oriented environment. Residential areas intended for lower intensity infill are represented by the Neighborhood Residential regulating district

Commercial Mixed Use
Urban Flex
Civic Mixed Use
Neighborhood Mixed Use
Low Density Residential

RSX 7.2 Existing Zoning
Form-Based Code Boundary
Station Area Plan Boundary

Park/Open Space



The Form-Based Code

In December 2021, City Council voted to confirm the Preferred Plan Direction. Implementation of the vision established in the Preferred Plan Direction and forthcoming NE 85th Street Station Subarea Comprehensive Plan Chapter requires a comprehensive set of regulations and supporting design guidelines. This form-based code is intended to facilitate development in the Station Area with clear and predictable standards that support transit-supportive development intensities in a high quality, pedestrian-oriented built environment.

Form-Based Codes Overview

Form-based codes are an approach to land use regulation that focuses on physical form as a primary element of zoning. Conventional zoning evolved with a focus on the separation of land uses, and over time has adapted to take on more complex topics like building height, massing, and other elements of physical form. This can create zoning codes that have unpredictable outcomes, do not achieve the character desired by the community, and which become complex to administer.

By contrast, form-based codes are organized around the desired physical character of future development with graphic, clear illustrations. This focus on physical form can result in future development that better matches the desired character of an area. One key aspect of form-based codes is that they can better link private development to the character of adjacent development and public spaces, creating a more seamless, inviting public realm.

Form-Based Code Elements

Regulating District

Building Height Building Massing Facade Modulation Side & Rear Setbacks

Frontage Type

Front Setbacks Ground Floor Design Cafe & Amenity Zones

Street Type

Sidewalks Trees & Street Furnishings Bike Facilities Road Widths





150



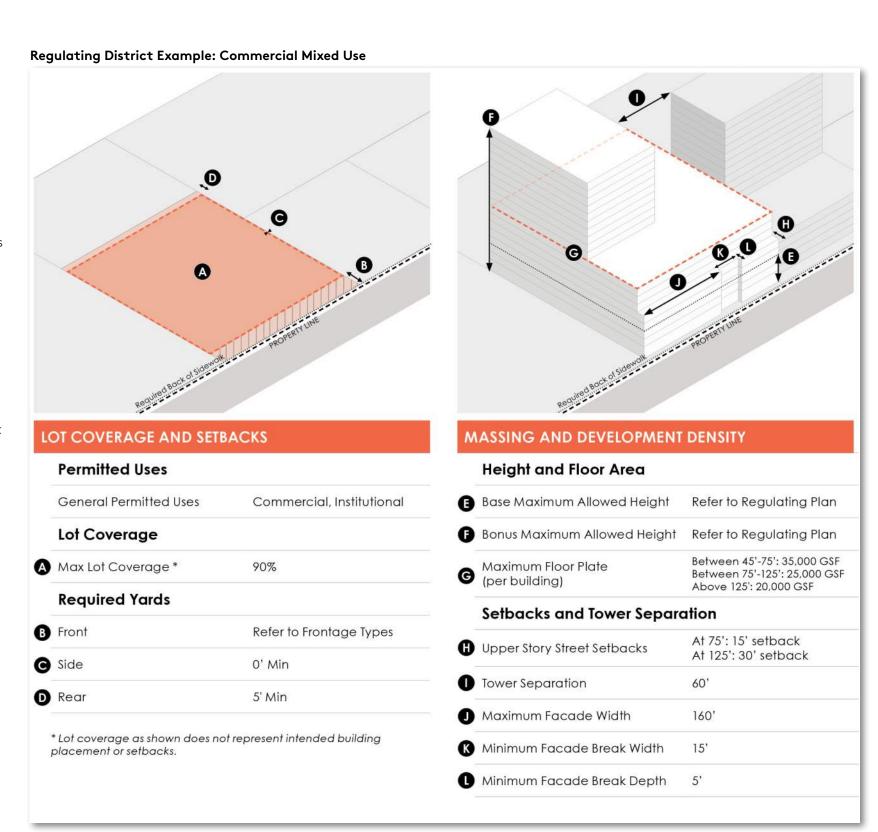
The form-based code for NE 85th St Station Area Plan applies to a subset of the larger study area (see regulating plan). The NE 85th St form-based code is key to realizing several aspects of the vision and goals of the overall plan. For instance, frontage standards include ground level parking setbacks that require structured parking to be located behind ground level uses that activate the public realm. Regulating districts like the urban flex district include standards to encourage smaller scale commercial spaces that can support existing local businesses and "maker" uses. This code is organized into four sections:

NE 85th Street Form-Based Code

Regulating Districts

Regulating districts define primary features of overall building form, including lot parameters, massing, height, and permitted uses. A regulating plan defines the regulating district designation and allowed height for each parcel. These regulating districts are established on the Kirkland Zoning Map and in the code. An example of the Commercial Mixed Use district is shown to the right.

This excerpt is for illustration purposes only. For current regulations, see Kirkland Zoning Code Chapter 57.

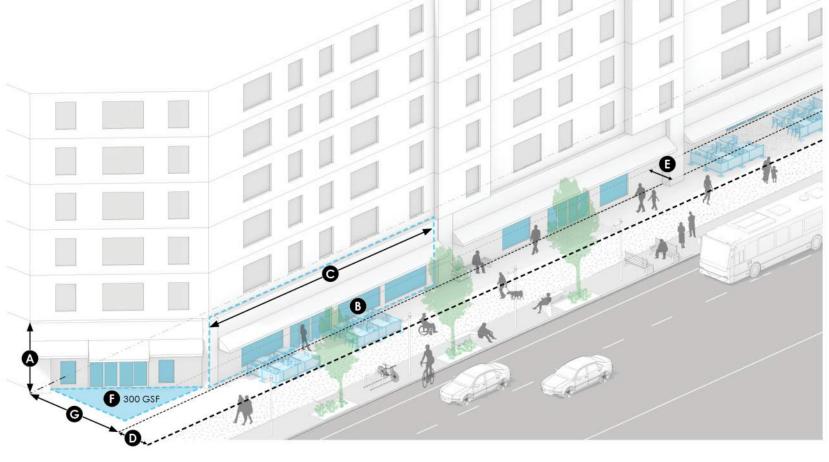


Frontage Types

Establish design regulations for private property frontages, including the required front setback and building base. Eligible frontage types are determined based on the adjacent street type for a subject property.

This excerpt is for illustration purposes only. For current regulations, see Kirkland Zoning Code Chapter 57.

Frontage Type Example: Retail and Active Uses



Ground Floor Design	
Minimum Street Level Story Height	15'
Facade Transparency	75%
Max Street Level Facade Width	65'
Entrances	
Location	Required on primary street-facing frontage
Entry Transparency	80%

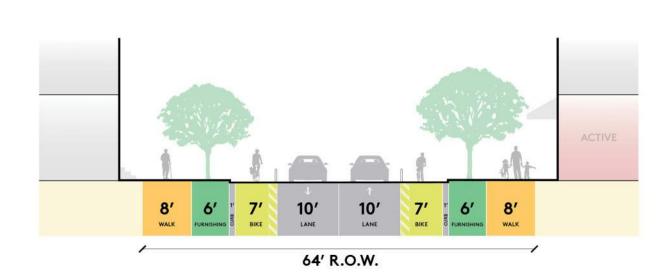
Public Realm	
Front Setbacks (Min, Max)	0',15'
Sidewalk Cafes/	Min depth 7', up to 10' additional
Amenity Zone	setback allowed
Corner Design	300 GSF required within property line at corners where two intersecting streets are a combination of major thoroughfare, main street, or neighborhood mixed use
Ground Floor	051
Parking Setback	25'

Street Types

Set the design intent for specific segments of public ROW, including functional classification, prioritized transportation modes, sidewalk and bikeway facility dimensions, and expected streetscape amenities like trees, planting, hardscape, and street furnishings.

This excerpt is for illustration purposes only. For current regulations, see Kirkland Zoning Code Chapter 57.

Street Types Example: Neighborhood Mixed Use Street



DESCRIPTION

Neighborhood mixed use streets have low to midintensity commercial and residential, with occasional active ground floors. With generally lower vehicular volume than major thoroughfares, these streets require careful balancing among modes and should include wider sidewalks, buffered bike facilities, transit routes, and narrower travel lanes.

PERMITTED FRONTAGE TYPES

ACTIVE USES

URBAN STREET RETAIL &

EDGE

Permitted	Permitted	Permitted	Permitted	Permitted
FUNCTION	IAL CLASSE	S	terial, Colle hood Acce	759
ADJACENT	Γ LAND USE	commerce S occasion	id-intensit cial, resider al active gi s, civic and	ntial, and round-

RESIDENTIAL

PLAZA/

STOOP/PORCH PUBLIC SPACE YARD

PRIVATE

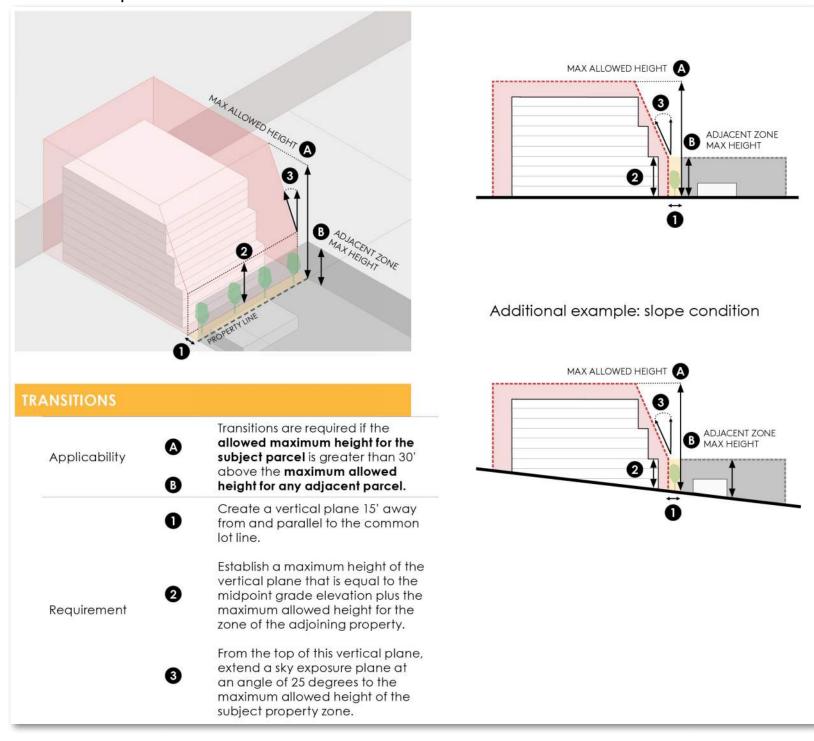
Districtwide Standards

Shown in the transitions example apply across the subarea, and include overall transitions, parking, plazas and public spaces, landscaping and open space, and sustainability and green innovation.

To use the code, an applicant first identifies the applicable regulating district for their property. Based on the street type designation for the parcel frontage, the applicant can choose from a set of eligible frontage types for that street type, as well as an understanding of the requirements for any improvements to the public right of way.

This excerpt is for illustration purposes only. For current regulations, see Kirkland Zoning Code Ch 57

Transitions Example



Green Innovation

Within the Form-Based Code District wide Standards, a Green Innovation component has been included to ensure that new development is consistent with the vision of the NE 85th Street Station Area Plan Sustainability Framework as well as aligned with the Sustainability Master Plan. The document outlines several requirements in detail with the overarching subjects of:

- High Performance Buildings
- Energy and Decarbonization
- Ecosystems and Green Infrastructure

Green Factor

The Green Factor is one of the primary tools that will be used to achieve the Ecosystems and Green Infrastructure goals at the project scale through building- and site-integrated green infrastructure. The Green Factor sets criteria for landscape and site-based sustainability measures. The landscape elements and benefits that are included in the Green Factor code will contribute to larger district sustainability goals focused on the natural environment, ecosystems, and stormwater.

Green Factor Criteria

LANDSCAPE ELEMENTS

- Bioretention facilities and/or soil cells
- B Structural soil systems
- Landscape areas with soil depth less than 24"
- Landscape areas with soil depth of 24" or more
- Preservation of existing trees
- Preservation of Landmark trees bonus
- Preservation of exiting evergreen trees bonus
- Groundcovers or other low plants
- Medium shrubs or perennials
- Large shrubs or perennials
- Small trees with 500 ft³ soil volume
- Medium trees with 1000 ft³ soil volume
- M Large Trees with 1500 ft³ soil volume

2 GREEN ROOFS

- Area planted with at least 2" but less than 4" of soil
- Area planted with at least 4" but less than 8" of soil
- Area planted with at least 8" but less than 30" of soil
- Area planted with trees and least 30" of soil

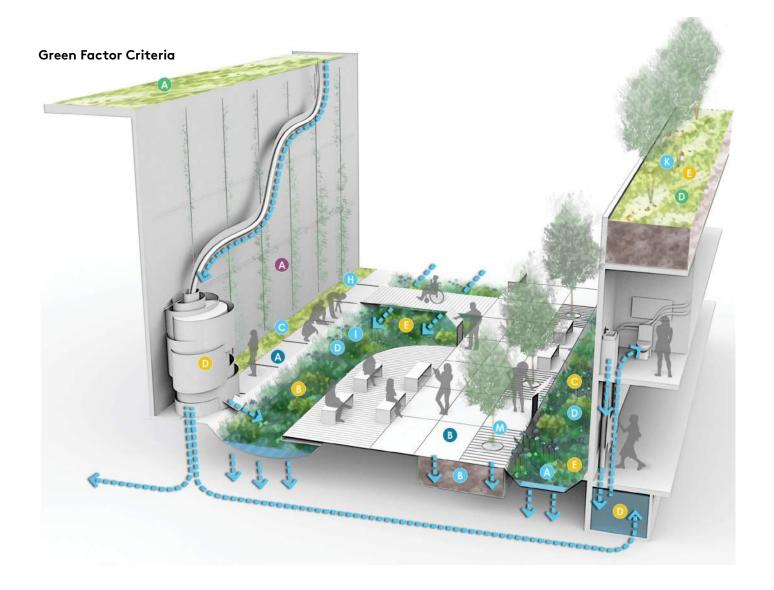
- Landscaped areas in food cultivation
- Landscape areas with native or drought tolerant plants
- Candscape areas at sidewalk grade where the majority of the area is covered with vegetation that is native or drought tolerant, and/or provides habitat for urban wildife and pollinators
- Rainwater harvesting
- Planting that provides food, forage and refuge for a diversity of species and/or inclusion of habitat elements such as woody debris, gravel/cobble, nesting materials, etc.

5 PERMEABLE PAVING

- A Permeable paving over 6"-24" soil or gravel
- B Permeable paving over at least 24" of soil or gravel

3 GREEN WALLS

- A Facade or wall surface onbstructed with vines
- B Facade or wall surface planted with a green wall system



Parks, Open Space & Environment —

Parks, Open Space and Environment Concepts and Goals

Open space within the Station Area will provide multiple benefits for employees, visitors, and resi-dents living in and around the Station Area and these spaces will be critical in supporting growth while providing places for people to gather and support mental, physical, and community well-being. Open spaces that are welcoming to people of a wide range of ages and stages of life, that support social connections, art and culture, and everyday interactions should be prioritized.

Open Space strategies within the larger Station Area align with the goals of the Parks, Recreation and Open Space Plan and the Sustainability Master Plan, and should respond to the character and scale defined for each of the Character Subareas and respond specifically to the environmental conditions of their watersheds (Moss Bay and Forbes Creek). While there are existing assets within the station area including Forbes Lake and areas of tree canopy and habitat, there are also gaps that exist due to urban development patterns and barriers. Goals include improving and connect-ing tree canopy and habitat areas, improving stream health by daylighting or making other im-provements, and generally minimizing impervious surfaces. Green infrastructure techniques that incorporate trees, planting, and natural materials as part of the drainage system, instead of conventional 'gray' stormwater facilities, provide additional environmental and open space benefits and support resilience through air and water quality, shade and cooling, and habitat. When con-sidering new open space design and existing open space enhancement opportunities, multi-benefit strategies that serve functions of active/passive recreation, flexible use open space, and environ-mental functions like stormwater management, carbon sequestration, air quality, and urban heat island mitigation, should be prioritized to maximize value.

Within the Station Area, open space opportunities include: the creation of urban linear parks, pocket parks, and plazas, rooftops and mid-block connections,

passive and active recreational parks, arts, cultural, and gathering spaces, and enhancements to existing parks and open space. Within these spaces, sustainability goals are promoted by prioritizing the use of large canopy trees, a diverse plant pallet of species that are native, drought tolerant and provide habitat such as food, forage, and refuge, and the integration of stormwater management. Management of Kirkland's urban forest resource for optimal health, climate resiliency and social equity will be important in creating new open spaces.

New development within the Station area should be encouraged to provide publicly accessible parks and sustainability components at ground level or at upperlevel portions of the site, while considering opportunities to replace tree canopy to support ecological goals by adding new trees and habitat with plantings wherever gaps exist. Enhancing publicly owned land to support open space objectives with improvements to provide open space and recreational amenities and explore potential partnerships for shared use agreements to support recreational uses. These actions will help to contribute to the overarching goal to provide all areas within the Station Area a park or open space within a 15-minute walk. Coordination with the PROS Plan on how park LOS is defined in more urban areas of the City that moves toward equitable park access within walking distance and away from a per acre approach should be considered to more broadly leverage green infrastructure to create more open space, educational and environmental opportunities.

Integrate parks and open spaces throughout the area and ensure all residents have access to open space within a 15-minute walk.



7.0 Parks, Open Space & Environment NE 85th Street Station Area Plan











Open Space Typologies: Characteristics

Open space opportunities will arise through public projects and with private development throughout the Station Area. Several varying typologies have been identified in the table below which can supplement and enhance private development while improving the open space network already in existence. As more development occurs and jobs and housing increase, so will the amount of open space. City of Kirkland staff will work with the development community as projects arise to fulfill the appropriate scale and type of open space to enhance the overall park and public realm system.

The following table describes twelve (12) open space typologies with siting criteria, approximate sizing requirements, programming potential and some example project opportunities.

Support park opportunities and amenities for community.



Open Space Typology	Siting Criteria	Sizing Range	Example Typical Program / Features	Example Opportunities within Study Area
1. Linear Open Space Along Trails	To be located in dense areas linking major urban nodes.	Minimum size of 15,000 SF	LandscapingSeatingPublic ArtPerformance spaces	Developer improvements along Cross Kirkland Corridor (CKC) or Trail connections to transit stops along NE 85th Street and the BRT station
2. Pocket Parks	Within tightly spaced urban fabric where accommodating larger open space is difficult, or where open space is needed in areas with limited access to park spaces.	Minimum size 10,000 SF	TreesSeatingPublic ArtPerformance spaces	Pocket park within dense commercial district
3. Active Recreation Spaces	Consider in areas where programming is lacking.	Playground minimum of 5,000 SF / Pickleball minimum of 7,500 SF	 Playground Exercise Equipment Pickleball / Tennis / Courts Dog Parks and Dog Runs 	Pickleball Courts; playground or exercise equipment in pocket parks and/or linear open space
4. Community Gardens (small & rooftop ex.)	Consider rooftops and temporary surface parking lots.	Varies on context	Planter bedsPollinator and bee habitatGathering tables / sinks / tool sheds	Surface parking lot potential; pocket parks; public plazas; private rooftops; publicly accessible rooftops
5. Rooftops with Public Viewpoints	Programming such as dog runs or playgrounds should be chosen in areas where a large proportion of families with young children live.	Playground minimum of 5,000 SF	PlaygroundCultural / Performance spacesDog Parks and Dog Runs	Potential for Playground or dog runs on top of residential rooftop within new commercial district zone.
6. Green Mid-block Connections	Sited within a travel corridor to maintain continuity for pedestrians and/ or cyclists. Or may exist adjacent to active frontages.	Varies on context	SeatingElements of landscapingWater components	Opportunities for east/west connections off 120th Main Street
7. Neighborhood Park	Should be sited near residential land use and provide adequate opportunity for a variety of program.	Minimum size of 2 Acres	 Seating and Public Art Elements of landscaping Community gardens Cultural and Performance spaces 	Enhance existing publicly owned parks and improve access to support open space objectives. Seek opportunities for community access to recreation assets, spaces, and facilities.
8. Community Park	Sited next to residential areas with access to pedestrian and bike paths. Large areas of managed landscape and opportunities for shade, program, refuge and impermeable surface.	Minimum size of 15 Acres	 Community center Elements of landscaping Connections and walking/cycling paths 	Enhance existing publicly owned parks and improve access to support open space objectives. Seek opportunities for community access to recreation assets, spaces, and facilities.
9. Plazas	Plaza will supply physical and visual access from the adjacent right-of-way. Support sense of security to users through well-lit and visible spaces.	Minimum size of 3,000 SF	SeatingElements of landscapingPublic ArtWater components	Norkirk Plaza at 7th Avenue and 112th St Ave NE; other examples could be larger-scale redevelopment in Station Area; coordination with corner treatments required in FBC
10. Tree Canopy and Habitat	Locate in areas where abundant natural light and limited infrastructure below grade is present to accommodate large soil volumes and trees. Seek opportunities to expand canopy and habitat, and bridge existing gaps.	-	 Landscaping Green infrastructure and stormwater features Nature trails 	Opportunities for additional tree canopy and habitat improvements within underutilized spaces, public land, and easements could be included as part of streetscape and multi-benefit projects. There is also an opportunity for a city Tree Nursery that would require a site at about 20,000 SF.
11. Unprogrammed Green Space	Opportunity to provide refuge and passive place to contemplate or simply enjoy nature, which may be sited within medium to lower scale density.	0.25 Acres.	Heavy vegetationLandscapingSeating	Forbes Lake Park Kirkland Cemetary
12. Green Infrastructure and Stormwater with Open Spcae for People	Areas that can accommodate water storage, conveyance, and quality improvements through natural systems that provide co-benefits	See standards	LandscapingGreen infrastructureGreen roofs	Forbes Lake Park

PARATE STATING

Open Space Typology Examples

Linear Open Space Along Trails

Linear Open Spaces along trails will be a minimum of 15,000 square feet and incorporate a variety of programs. Opportunities within the study area include developer improvements along the Cross Kirkland Corridor (CKC) and trail connections to transit stops along the 85th Street and BRT Station.





Community Gardens

Community gardens are opportunities to provide planter beds for food cultivation and/or habitat for pollinator species and bees. They can be in surface parking lots as temporary programming, or in more permanent conditions such as on private rooftops, within pocket parks, public plazas and on publicly accessible rooftops.





Pocket Parks

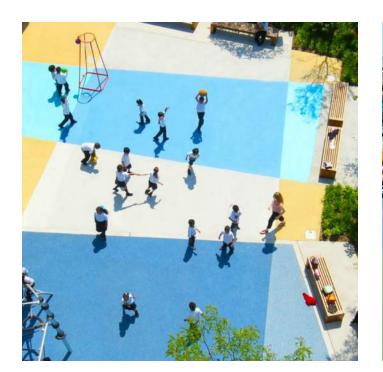
Pocket parks are opportunities to incorporate open space in dense, tight urban fabric with a minimum of 10,000 square feet. The commercial mixed use district could see potential for pocket parks given its density.





Active Recreation

The types of active recreation programming is limitless and varied. Some example opportunities for the Station Area include pickleball courts, playgrounds, exercise equipment, and bocce ball courts.





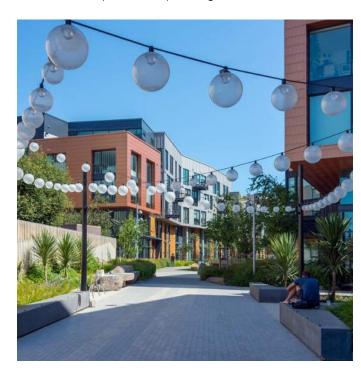
Rooftops with Public Viewpoint Areas

Rooftops have a wide potential to create public amenity space whether it be on private rooftops, or publicly accessible ones. Potential for playgrounds within the new commercial district zone is possible, along with other programming including community gardens or dog parks.



Green Mid-Block Connections

Opportunities for east/west connections off of 120th Main Street are possible for green mid-block connections which can vary in size depending on its context.





Neighborhood Park



New neighborhood parks should be a minimum of 2 acres in size. Existing neighborhood parks in and near the station area include Rose Hills Meadows Park and North Rose Hill Woodlands Park. Better connections to existing community parks will support open space objectives, and an inventory of existing publicly owned parcels within the station area should be completed to seek other opportunities.



Community Park

New community parks should be a minimum of 15 acres. Existing community parks near the station area include Peter Kirk Park and Everest Park. The City currently has an agreement with Lake Washington High School for shared use of their fields and recreation facilities. Enhancements and better connections to existing community parks will support open space objectives, and an inventory of existing publicly owned parcels within the station area should be completed to seek other opportunities.



Plazas

Plazas are a minimum of 3,000 square feet and offer the opportunity for flexible gathering spaces for events, performances, art, or other uses, as well as an important opportunity for wayfinding and identity elements. The future of the area could include a plaza at 7th Avenue and 112th St Avenue NE, or a gateway plaza in the Rose Hill area along NE 85th Street as part of a larger scale redevelopment in Station Area; Coordination with corner treatments required in FBC





Tree Canopy and Habitat

Tree nursery opportunity within the area would provide greater tree canopy and habitat as well as serve a function for the Parks and Community Services Department.



Unprogrammed Green Space



Passive, unprogrammed green space is important to a neighborhood to provide moments of refuge, contemplation, and true connection to nature. Areas of this nature could include public or interpretative art, should be a minimum of 0.25 acres and examples include Forbes Lake Park and the Kirkland Cemetery.





Green Infrastructure and Stormwater With Open Space for People

Areas to store and contain extra water can be accomplished throughout the Station Area within a variety of scales. Forbes Lake Park will have the opportunity to accommodate green infrastructure and storm water while providing green space for people to enjoy.







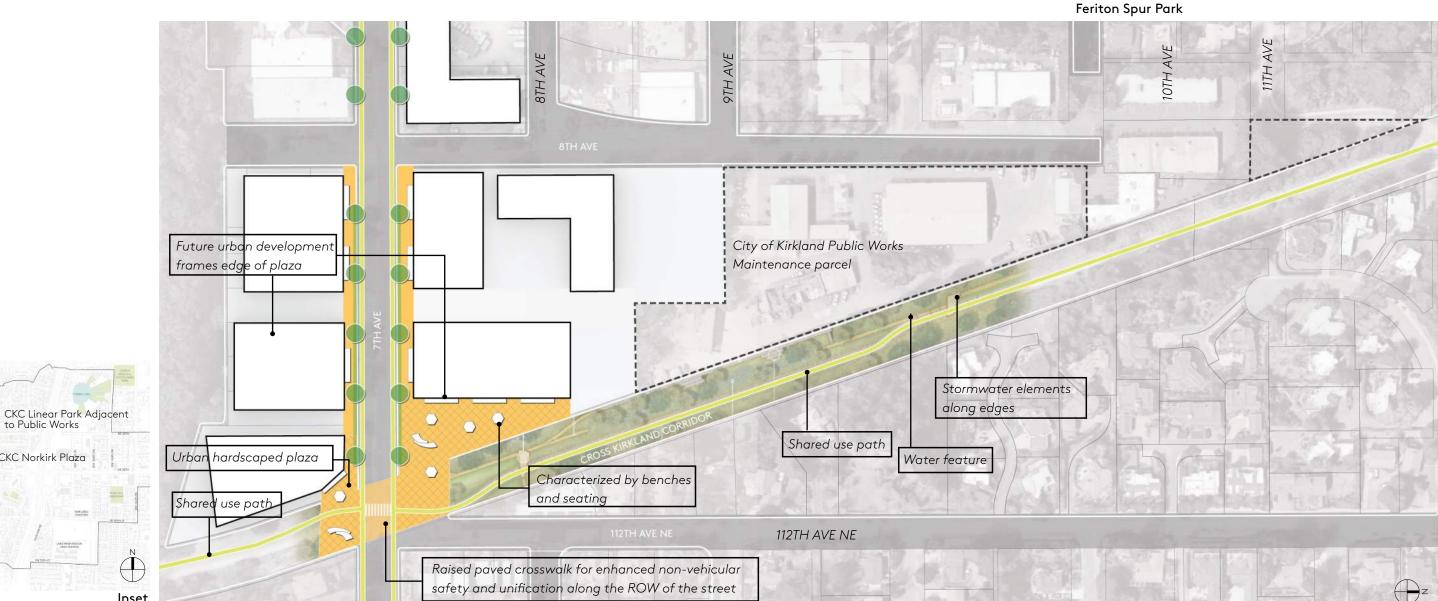
Open Space Project List

Cross Kirkland Corridor Related Improvements at Norkirk Plaza and adjacent to Public Works **Maintenance Center**

The Cross Kirkland Corridor (CKC) Norkirk Plaza is located at the important intersection of 7th Avenue and 112 Street where bike focused infrastructure is envisioned to connect from the BRT pick up / drop off location to downtown. This concept builds on the CKC Master Plan vision and will support the creation of publicly accessible transit-oriented open space within the urban neighborhood. It is characterized by high quality landscape materials, pedestrian-oriented amenities like seating, and buildings that engage the open space.















Forbes Lake Park

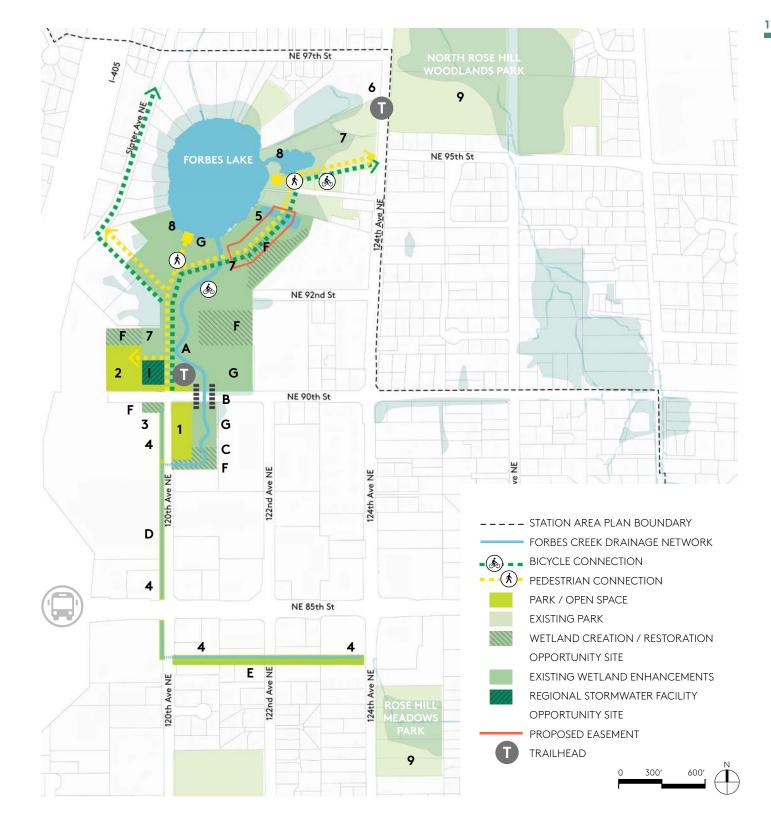
Preliminary planning to expand public open space and neighborhood connectivity near the City of Kirkland's Forbes Lake Park as part of the Station Area Plan has been explored. Existing protected critical areas, including Forbes Lake and associated wetlands and tributary drainages to Forbes Creek, including some piped conveyances, appear to restrict options for developing recreational facilities, however the attraction of these natural features provide opportunities for passive and active recreational public use and environmental education and interpretive exhibits.

Forbes Lake Park is proposed to have a boardwalk with easy connections to North Rose Hill Woodlands Park as well as active transportation facilities nearby, that is a minimum of 10 feet wide to support two-way

directional travel with open grate decking to avoid exceeding single threshold stormwater discharge. High Performance Bioretention Soil Mixture would likely be incorporated into Forbes Lake Parks to enhance overall water quality. The City encourages daylighting a stream that is located in a culver to restore it to a more natural open space with tree preservation and native buffer vegetation plantings. The purpose is to improve the values and functions of the stream, including maintaining water quality, reducing storm and flooding water flow, and providing wildlife habitat.

The proposed open space options have been selected to avoid and or minimize potential environmental impacts, as required for regulatory compliance and permitting by federal, state, and local agencies, as applicable.









120th Ave NE Corridor and Forbes Lake Vision

A refined corridor at 120th Ave NE serves as an important connection to Forbes Lake Park as well as Lake Washington High School. It will accommodate a place for both pedestrians with wide sidewalks, as well as cyclists with dedicated bicycle facilities avoiding shared bike/ped routes where possible. Slow vehicle speeds with narrow travel lanes, smaller turning radii and other traffic calming measures are envisioned along the corridor. A strong public realm that focuses on the transitions for buildings and their relationship at the ground floor will be emphasized, and developments will be encouraged to include publicly accessible plazas and pocket parks along the 120th Ave NE frontage. The northern terminus of 120th Ave NE in the Station Area will meet a gateway to the Forbes Lake Park boardwalk.

Support habitat, stream, lake and wetlands health.











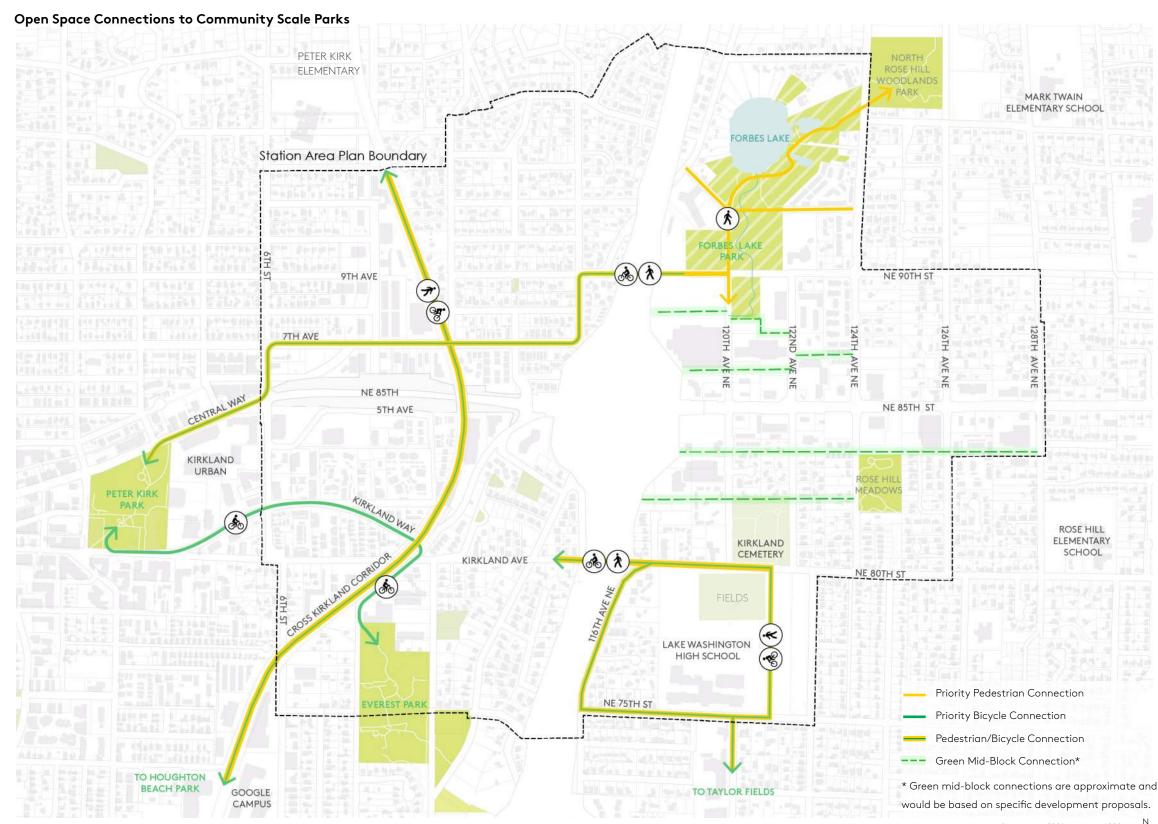




Enhanced Connections and Improvements to Existing Parks

The planning process identified opportunities for enhanced connections to existing parks. These enhanced connections will improve access to parks, and creating connections from the Cross Kirkland Corridor to existing parks will help link together existing recreational spaces in, and close to, the district. Existing Community Park assets of Peter Kirk Park, Taylor Fields, and Everest Park located just outside the Station Area and partially within the area respectively could be improved, and walking and cycling routes to these community assets can be enhanced, including connections directly from the CKC. There is an opportunity for the City to improve existing public assets with enhanced or new park and recreation elements, and all publicly owned land should be studied for potential to contribute to open space objectives. These enhancements and connections can help address gaps in the system in the south western area of the Station Area.

Enhance community and neighborhood parks and improve ease of access by walking, rolling and transit.



Transportation & Mobility —

Transportation and Mobility Concepts and Goals

The Station Area has served a crossroads for many years, as NE 85th Street, known as "Old Redmond Highway," was the first paved highway on the eastside, and with its location up the hill from downtown, has been a natural place of connections for many generations, including the old rail corridor, that is now the Cross Kirkland Corridor trail, to points north and south.

Today, NE 85th Street continues to be an important connector from Kirkland to Redmond and other east side communities, and the interchange at I-405 provides regional north-south access. As a principal arterial, NE 85th St has been designed to support throughput, moving people between places. NE 85th Street has a right-of-way width of nearly 100' wide and a typical curb to curb width of 60'. With significant roadway volumes on NE 85th St, and the north-south barrier of I-405 to east/west connectivity, these roadways have a profound effect on the surrounding neighborhoods, creating physical and social barriers between the four quadrants. Existing development is auto oriented with large parking areas and very little space devoted to walking and biking.

Construction of NE 85th Street



The planned Stride BRT station and multi-modal access improvements present a significant opportunity and impetus to improve many of these conditions. As a transit-oriented community, the station area will accommodate a significant share of the City's growth, in support of city and regional plans, and add more jobs to improve the balance of land uses in the area and the City as a whole. Together with multi-modal infrastructure and services, these plans will support a proactive shift toward a successful place that builds value for the city and community benefit.

As a place to be, rather than to pass through, the Station Area will support and improve access to businesses, homes, schools, and open spaces. It will put people, bicyclists, and transit first, while maintaining a manageable level of vehicular traffic. Along with growth and development, the plan envisions more places for people to gather and spend time, in a lively public realm. The planned transportation improvements as a part of this effort have been designed to support a robust mobility network that bridges some of the existing barriers, increases network connectivity, and provides safe intersections and crossings.

A Focus on Mobility

Main goals throughout this plan are to support mobility, to increase opportunities for people to walk, bike, and take transit to key services and destinations, and to manage vehicular congestion. Transportation analysis was conducted in coordination with The City of Kirkland to support their understanding of community benefits, tradeoffs, and fiscal impacts of different transportation alternatives for the I-405/NE 85th Street Station Area Plan (SAP).

Evaluation of traffic volumes, vehicle delay, and level of stress for walking and biking under both the existing conditions and with Station Area Investments were compared. Transportation investments and mitigations were identified and evaluated against existing conditions and no action alternatives. Additionally, a Travel Demand Modeling and Forecasting Study with

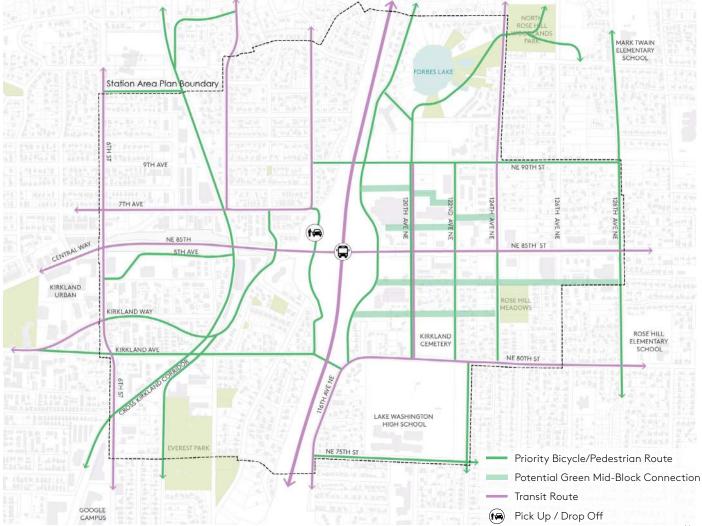
the goal of identifying infrastructure and policies required to support achieving objectives related to:

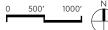
- Sustaining the vehicle throughput functionality of NE 85th Street as a principal arterial while enhancing its role as an urban street
- Incorporate transportation improvements appropriate to surrounding land uses and densities
- Accommodating effective transit service within the study area along transit corridors
- Establishing low-stress, connected bike and pedestrian networks

Mobility and Active Transportation

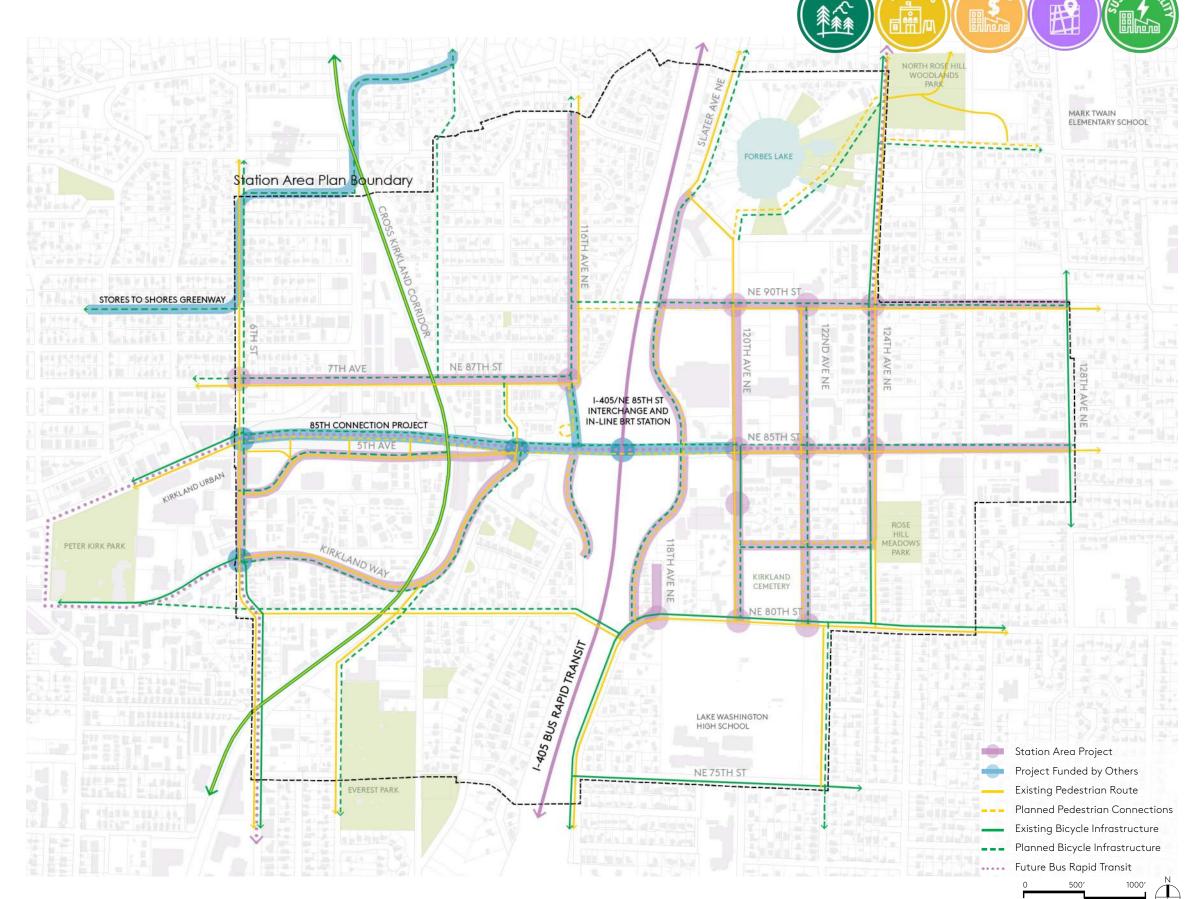
Ensuring a safe and pleasant network for walking, biking, and other active transportation options is critical to the success of the Station Area Plan and a priority for the City. The active transportation network includes a number of specific proposed concepts and projects. For this long-range plan, the City is targeting modal split goals for the station area of approximately 24% walk and bike trips, 29% transit/high-occupancy vehicle (HOV) trips, and 47% single-occupancy vehicle (SOV) trips. More information can be found on the following pages.

Mobility and Active Transportation (Bicycle/Pedestrian and Transit)





Overview of Transportation Concepts



Low Stress Bike Network

Throughout the district, a network of bikeways is intended to provide a low stress riding experience for cyclists. On streets with higher speeds and vehicle volumes, bikeways are separated from vehicles through grade separation, furnishing zones, parked cars, or striped buffers. On lower speed and lower volume streets, bikeway connections are provided through neighborhood greenways, which include signing, striping, and speed and volume controls to prioritize a street for walking and bicycling. This low stress bike network is supplemented by additional facilities such as bicycle parking and intersection improvements such as bicycle signals, green conflict markings, and refuge islands.

Pedestrian Scaled Network

A complete network of pedestrian accessible routes is intended to support the vision of the station area as a walkable, urban district. This includes a mix of expanded or improved sidewalks, green mid-block connections that provide access through otherwise large blocks, and public spaces like plazas and parks which can function as pedestrian pass-through routes. A more complete network of sidewalks and pedestrian connections is also intended to provide more universal accessibility for users of all ages and abilities.

Additional Mobility Elements

In addition to these station area-wide improvements, a number of special elements are proposed. A set of new boardwalks will provide increased access around Forbes Lake. Trails are planned through the WSDOT interchange property at the current cloverleaf locations. A shared use bike and pedestrian connection along the south side of NE 85th St will connect the station to Downtown Kirkland.

Future Auto Network

The plan recognizes the importance of NE 85th Street as a principal arterial, as well as the challenges of an incomplete network that result from existing barriers and large block sizes. The Preferred Plan includes a mix and distribution of growth and land uses to minimize substantial congestion impacts, which were studied through the EIS process and supplemental studies. The Supplemental Transportation Memo available in the appendix provides more information about the potential change in peak hour traffic volumes for the planned growth in comparison to the No Action alternative, showing an increase in limited areas east of I-4015, of up to 600 trips per hour. The planned development intensity and mix of uses east of I-405 present a greater opportunity to reduce overall vehicular trips through transit-oriented development. Within the Station Area, transportation improvements have been planned to maintain or improve the existing traffic flow and emphasize increased functionality of the network for vehicles and reducing conflicts between vehicles and people walking or biking with safe crossings and other means.

Supporting Transit

One of the main objectives for the project is to facilitate easy access and use of the future Stride BRT station. Envisioned as a transit-oriented community, the plan considers ways to complement existing local routes, as well as the efforts around the K line bus rapid transit plans. The plan includes complete street concepts for improvements to streets and greenways, and coordinates shared use trails and other connections between transit stations and key services and destinations. Analysis found that with planned growth, there may be a minimal travel time impact of 1-2 additional minutes on transit corridors within the station area. More information on this analysis follows.

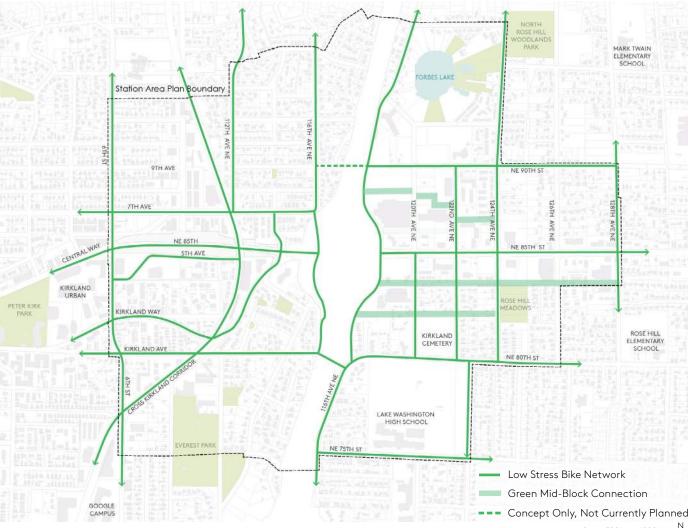
Parking

With plans to support more walking, biking, and transit use, the goal is to facilitate adequate parking needs and management for people who live, work, and visit the Station Area, while reducing the negative impacts of parking requirements to the area. Bike parking and electric vehicle / micro mobility parking is addressed in the Form-Based Code. The following section on Transportation Demand Management (TDM) explores a few options to implement within the district.



As a place to be, rather than to pass through, the Station Area will support and improve access to businesses, homes, schools, and open spaces.

Low Stress Bike Network







(KOBILI)

A PINA SIL

NE 85th Street Future Vision, Looking West



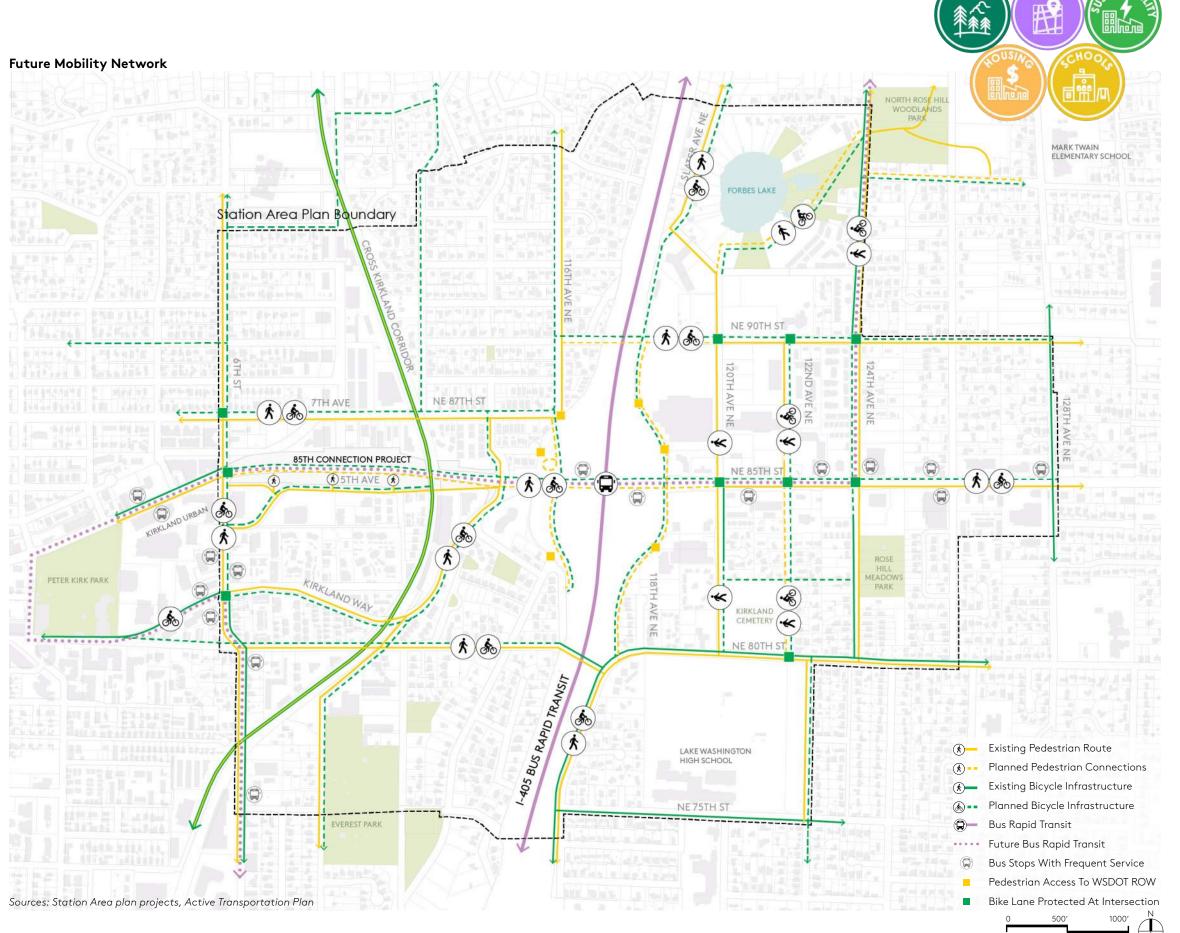
Active Transportation Plan Coordination

The Station Area Plan's transportation analysis and study has been running alongside the City of Kirkland's ongoing work with the Update to the Active Transportation Plan (ATP) which will be finalized in 2022. The update to the ATP reaffirms Kirkland's commitment to a multi-modal system of transportation choices by providing network and infrastructure improvement recommendations to enable people of all ages and abilities to safely walk, bike, and roll.

Specifically, the Active Transportation Plan outlines three main goals:

- 1. Create a safe, connected pedestrian network where walking is a comfortable and intuitive option as the first choice for many trips.
- Create a connected bicycle network that accommodates people of all ages and abilities to get to destinations such as activity centers, parks, and transit.
- 3. Encourage and incentivize more people to walk and bike and encourage safe behavior for all users of the transportation system.

Network recommendations made as part of the ATP update have been incorporated into the active transportation network vision for the Station Area Plan.



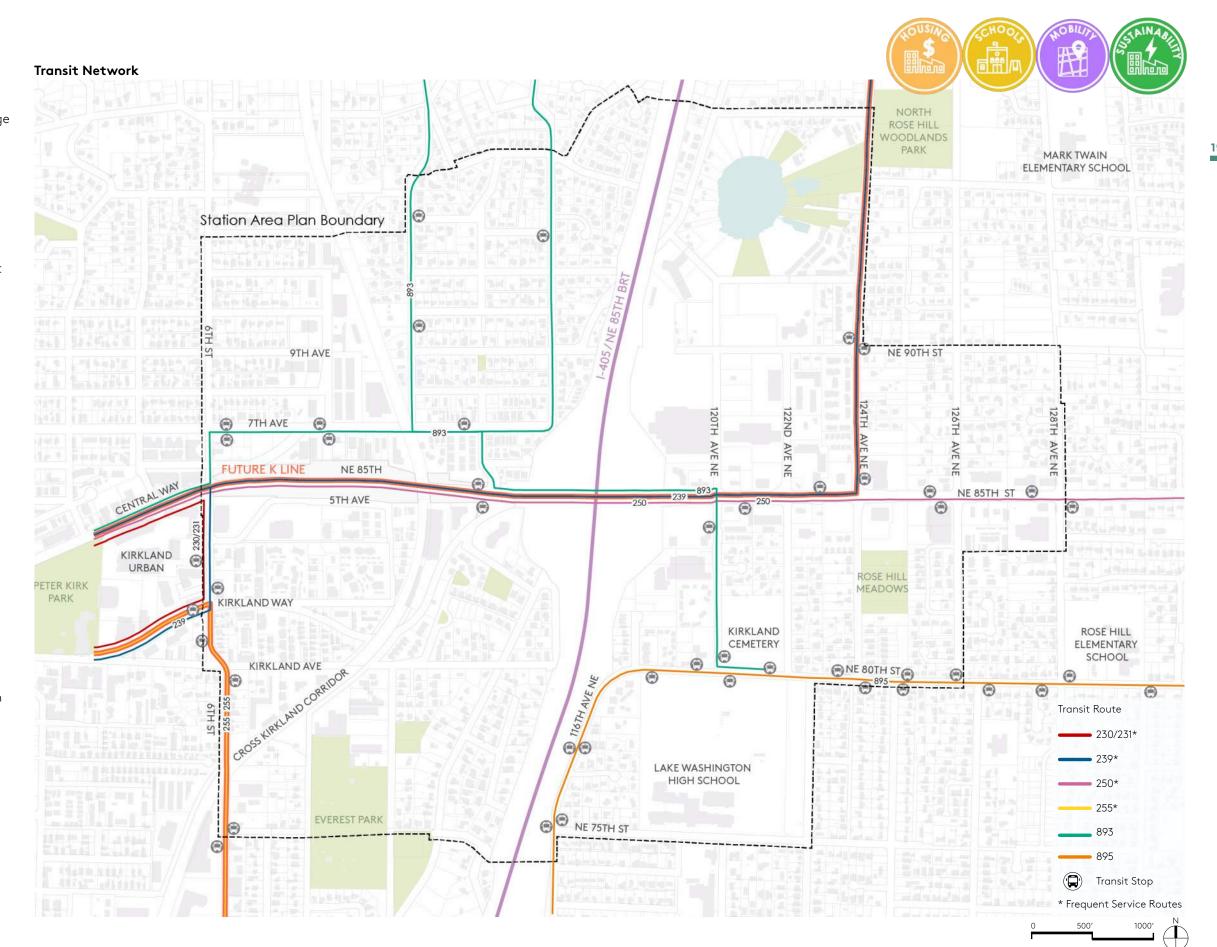
Supporting the Future Transit Network

Three primary elements to understand potential change to transit conditions under the different land use alternatives are: passenger loads, speed and reliability, and access to transit. Two routes were evaluated to estimate how travel times for transit vehicles might change from existing conditions to 2044 conditions under the 2044 Preferred Alternative for the Station Area Plan. The two routes are:

- Along NE 85th St between 128th Ave NE and 6th St (Route 250)
- Along NE 85th St and 124th Ave NE between NE 90th St and 6th St (Route 239 and K-Line)

Analysis shows that projected overcrowding of buses will impact many transit routes within the Study Area. Delay at many intersections along NE 85th Street may slow down transit by 1-2 minutes according to a study done by transportation consultant Fehr and Peers (see Appendix 11.6) on point to point analysis, not the full route. This delay may reduce reliability of service. Currently, a queue jump is being planned at NE 85th Street and 6th Street to improve transit operations. Improvements to enhance access to transit include:

- Construction of shared use trail connections to transit stops along NE 85th Street and the BRT station.
- Sidewalks will be widened along 85th street throughout the SAP.
- Complete street and greenway improvements on key routes accessing transit stops along 85th Street and the BRT station, including 5th avenue, 7th avenue/NE 87th Street, 116th Avenue, and 90th Street.
- Dedicated bus lanes from 114th to east of interchange
- Initial planning and conceptual design efforts are beginning for the future K-Line BRT



Mobility and Modal Split Goals

Travel Demand Management (TDM)

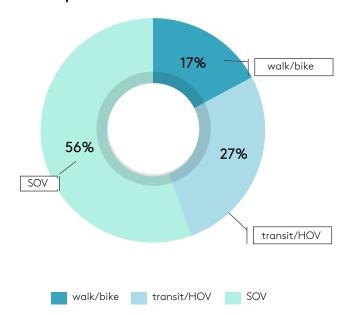
TDM strategies suitable for the station area were analyzed with the Preferred Plan growth as part of the 2021 Fiscal Impacts and Community Benefits Study. With the recommended strategies in place, the analysis estimated a possible 13% reduction in single-occupancy vehicle (SOV) and high-occupancy vehicle (HOV) trips. The recommended TDM strategies translates to a 31% increase in the number of transit, walk and bike trips. Overall, the analysis estimated that the number of trips made by SOV could decrease by 7%, by HOV could decrease by 2%, and by transit and walk/bike could increase by 4% and 6% respectively. Mode share trips utilized number of person trips and modal percentages for each quadrant of the study area and estimated using information from the Bellevue-Kirkland-Redmond (BKR) travel demand model and the Puget Sound Regional Council (PSRC) regional travel demand model. The initial number of PM peak hour vehicle

trip generated by the project were calculated using Fehr & Peers' MainStreet tool, with built in estimates for dense urban environments. vehicle trip generated by the project were calculated using Fehr & Peers' MainStreet tool, with built in estimates for dense urban environments.

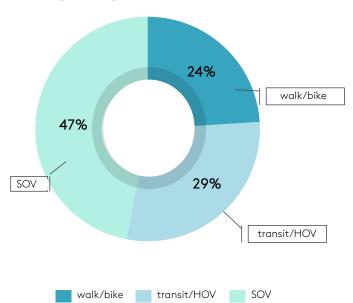
Based on analysis and a comparison of existing modal splits and targets in other areas, the City is targeting modal split goals for the station area of approximately 47% SOV, 29% HOV/Transit, and 24% walk and bike trips. TDM programs are successful when they are enforced within developments. Implementation and monitoring will be critical to the success of this target mode share in Kirkland.

Modeled no action modal split and proposed modal split goals within the study area are shown below:

Modal Split: No Action



Modal Split: Proposed Goal (2044)



Additional mitigation measures could be considered to expand TDM strategies including:

- Unbundle parking to separate parking costs from total property cost, allowing buyers or tenants to forgo buying or leasing parking spaces if they do not park a car.
- Revise parking code to reduce the amount of parking new developments must provide.
- Implement managed on-street parking strategies (e.g., designate special use zone for activities such as loading/unloading or emergencies
- Require new development to charge for parking off-street.
- Encourage or require transit pass subsidies from developers/property owners.
- Utilize a Ridematch Program to assist potential carpoolers in finding other individuals with similar travel routes.

Mobility In Terms of Space: the number of vehicles and space needed to accommodate people traveling by different modes



Source: Cycling Promotion Fund

Street Types

Street improvements are designed to accommodate all modes of travel, support a pleasant and safe public realm, and support the homes, businesses, and community places within the Station Area. Improved sidewalks and dedicated bikeways ensure that walking and biking in the station area is safe and pleasant. Capacity is added to key intersections on major arterials through strategic widening and signal operation changes to avoid gridlock. These improvements are linked to overall urban design and mobility goals for each corridor.

Street Types set the design intent for specific segments of public ROW, including functional classification, prioritized transportation modes, sidewalk and bikeway facility dimensions, and expected streetscape amenities like trees, planting, hardscape, and street furnishings. They are addressed in the Form-Based Code and illustrated in the following sections.

Note: only areas within The Form-Based Code boundary have a street type assigned. this does not preclude additional PEDESTRIAN/BICYCLE improvements within the Station Area

This excerpt is for illustration purposes only. For current regulations, see Kirkland Zoning Code Ch 57.

Major Thoroughfare

Main Street

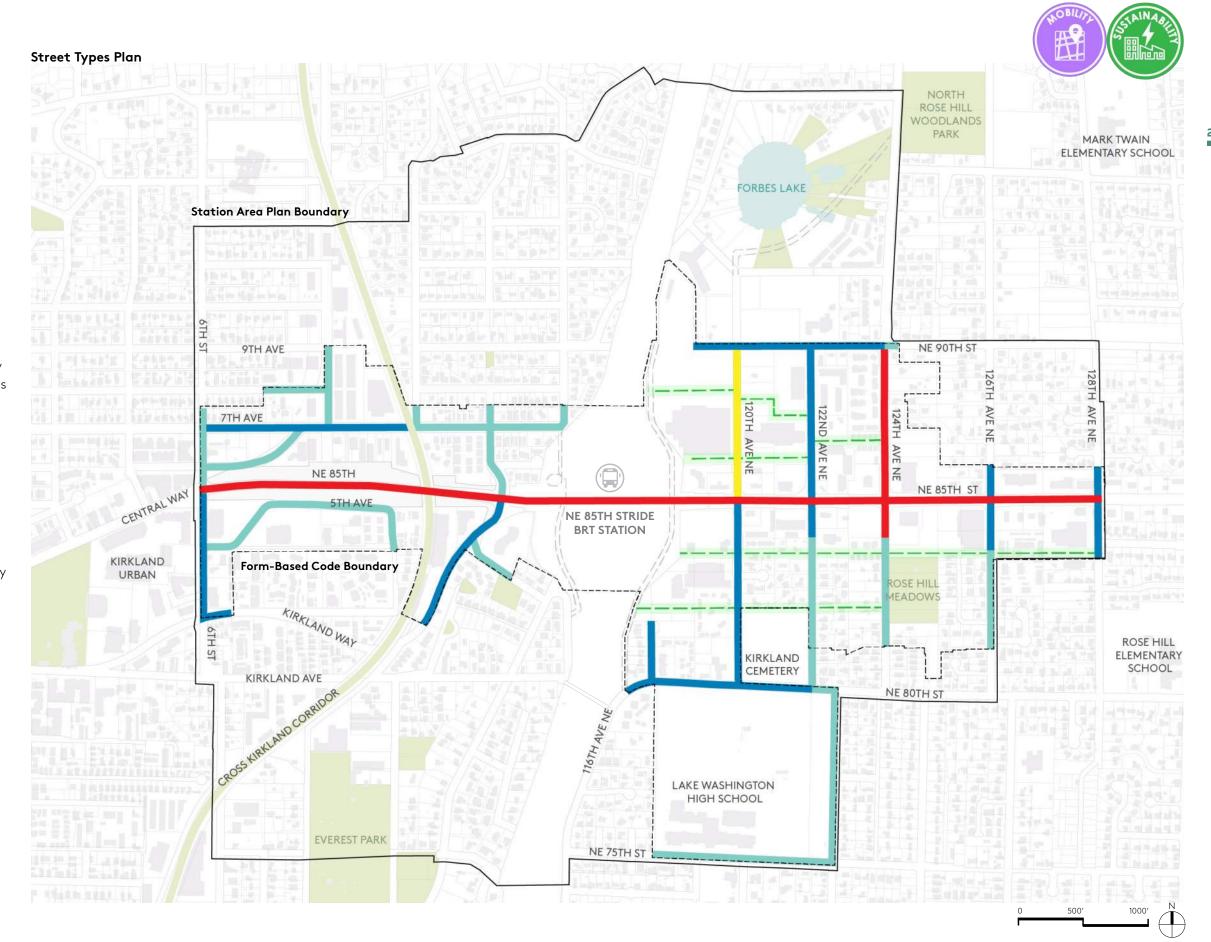
Neighborhood Mixed Use Street

Neighborhood Residential Street

Green Mid-Block Connection *

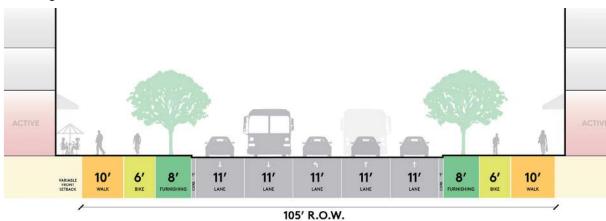
--- Pedestrian/Bicycle Connection

* Green mid-block connections are approximate and would be based on specific development proposals.



Street Type Sections

Major Thoroughfare



DESCRIPTION

wider sidewalks.

Major Thoroughfares are streets that connect regional centers or pass through central commercial corridors. Many of these streets have significant traffic volumes at peak hours, and are key places for high-capacity transit routes, separated bike facilities, and

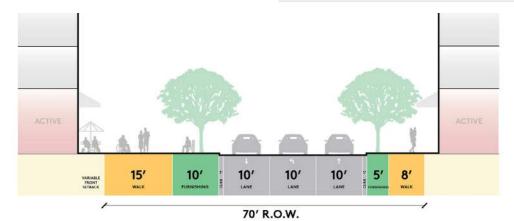
PERMITTED FRONTAGE TYPES

URBAN	RETAIL &	RESIDENTIAL	PLAZA/PUBLIC	PRIVATE YARD
STREET EDGE	ACTIVE USES	STOOP/PORCH	SPACE	
Permitted	Permitted	Not Permitted	Permitted	Not Permitted

FUNCTIONAL CLASSES Principal Arterial

High intensity commercial, ADJACENT LAND USES residential, and active ground-level uses

Main Street



DESCRIPTION

Main Streets are primary pedestrian corridors with active uses and generous sidewalks. They feature high quality streetscapes with linear open space, decorative paving, and tree canopy. These are often important corridors for transit or supported with transit nearby.

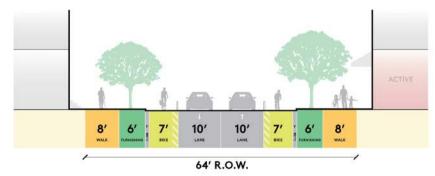
PERMITTED FRONTAGE TYPES

URBAN	RETAIL &	RESIDENTIAL	PLAZA/PUBLIC	DDN/ATE VADD
STREET EDGE	ACTIVE USES	STOOP/PORCH	SPACE	PRIVATE YARD
Permitted	Permitted	Not Permitted	Permitted	Not Permitted

FUNCTIONAL CLASSES Minor Arterial, Collector

Mid to high intensity ADJACENT LAND USES commercial, residential, and ground-level retail uses.

Neighborhood Mixed Use Street







DESCRIPTION

Neighborhood mixed use streets have low to midintensity commercial and residential, with occasional active ground floors. With generally lower vehicular volume than major thoroughfares, these streets require careful balancing among modes and should include wider sidewalks, buffered bike facilities, transit routes, and narrower travel lanes.

PERMITTED FRONTAGE TYPES

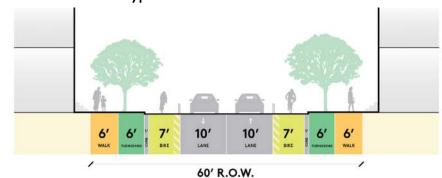
URBAN STREET RETAIL &

EDGE	ACTIVE USES	STOOP/PORCH	PUBLIC SPACE	YARD
Permitted	Permitted	Permitted	Permitted	Permitted
FUNCTIO	NAL CLASSE	S	terial, Collec hood Acces	
ADJACEN	NT LAND USE	commerce S occasione	id-intensity cial, resident al active gro c, civic and c	tial, and bund-

RESIDENTIAL PLAZA/

PRIVATE

Neighborhood Residential Street Type 1



DESCRIPTION

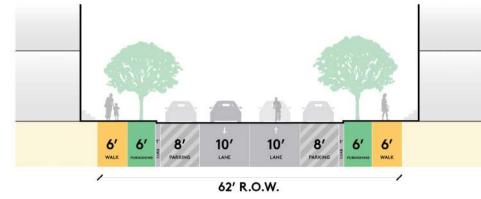
Neighborhood residential streets are low vehicular traffic volume streets that have primarily residential frontages and dedicated bicycle facilities.

PERMITTED FRONTAGE TYPES

URBAN STREET	RETAIL &	RESIDENTIAL	PLAZA/	PRIVATE
EDGE	ACTIVE USES	STOOP/PORCH	PUBLIC SPACE	YARD
Not Permitted	Not Permitted	Permitted	Permitted	Permitted
FUNCTION	IAL CLASSES	Collector, Access	Neighborh	ood
ADJACENT	LAND USES		2.5)

Street Type Sections

Neighborhood Residential Street Type 2



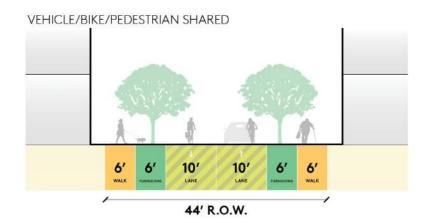
DESCRIPTION

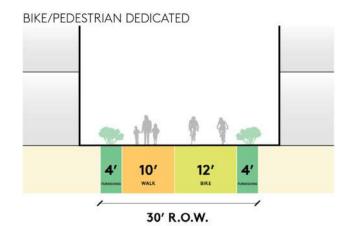
Residential-focused streets with low vehicular traffic volumes, which can accommodate shared bike facilities.

PERMITTED FRONTAGE TYPES

URBAN STREET EDGE	RETAIL & ACTIVE USES	STOOP/PORCH	PLAZA/ PUBLIC SPACE	PRIVATE YARD
Not Permitted	Not Permitted	Permitted	Permitted	Permitted
FUNCTION	IAL CLASSES	S Neighbor	hood Acces	S
ADJACENT	LAND USES)

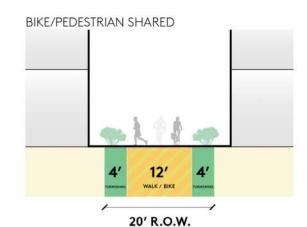
Green Mid-Block Connection





DESCRIPTION

These streets are generously landscaped mid-block connections typically as part of larger developments. May include required green infrastructure. Does not include public R.O.W. improvements to "green" an existing street. Mid-block connections may be used for emergency access, and may also be used for access to loading zones, parking entrances, or other "back of house" functions.



PERMITTED FRONTAGE TYPES

		PRIVATE YARD
TIVE USES STOOP	PORCH PUBLIC SP	ACE
rmitted Permit	tted Permitted	d Permitted

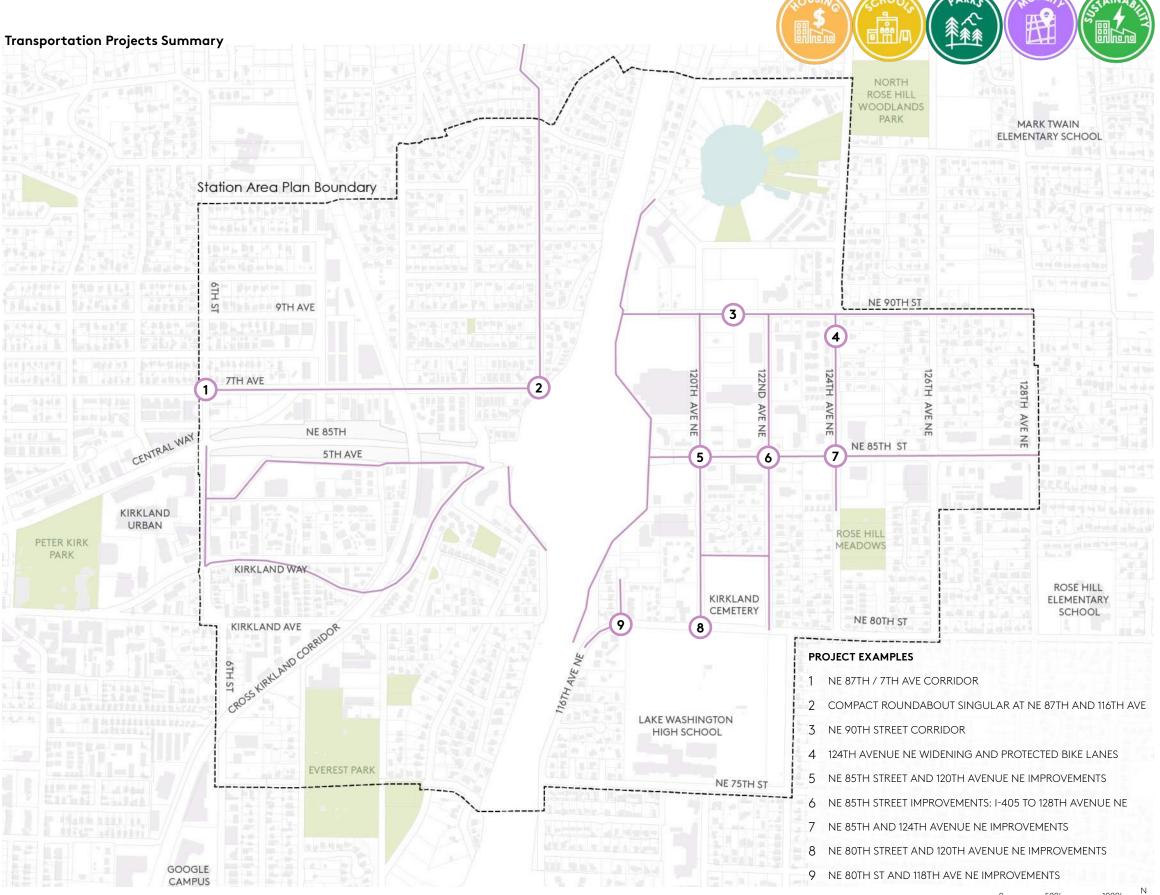
ADJACENT LAND USES

Low to high intensity commercial or residential uses, typically within larger developments. May have active ground-level uses, depending on site design

Transportation Projects

A number of different transportation projects are being considered as part of this Plan. Different categories of funding and implementation exist for these projects including developer led new site projects, 6 year CIP, 20 year CIP, and WSDOT Development funded. The K Line efforts are planned and the Station Area Plan does not preclude other transit specific infrastructure investments as a result of more detailed K line study in the future. Transportation improvements were identified as part of a range of studies during the planning process and have been developed to a representative planning level with a focus on reducing conflicts between modes of transportation, while managing vehicular congestion. When improvements move into project design, they should support mobility and safe crossings with a priority for people walking, rolling, and taking transit, as well as enhance the public realm through public art, landscape, green infrastructure, and trees.

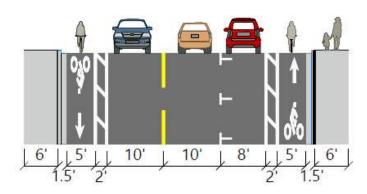
The following are few representative projects amongst a long list, and have been developed at a conceptual plan level, and are highlighted on the following pages. The projects may evolve as design proceeds with future development review. Additional information on representative transportation projects can be found in the Appendix.





7th Avenue - NE 87th Street (6th Street to Cross Kirkland Connector) Buffered/Parking Protect Bike Lanes

Source: Fehr and Peers



NE 87th and 7th Ave Corridor

Provide buffered bike lanes and consistent sidewalks between 6th Avenue and 116th Avenue NE. West of the Cross Kirkland Corridor, provide parking-protected bike lanes on the north side of the street. East of the Cross Kirkland Corridor, provide buffered bike lanes, and a 5-foot landscape strip to enhance the street's character.

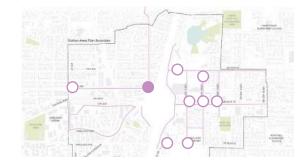




Source: Fehr and Peers

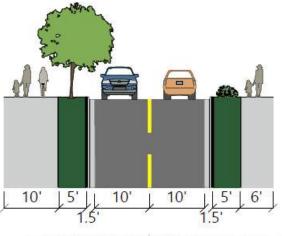
Compact Roundabouts at NE 87th and 116th Ave

Revise this intersection to be a compact roundabout that better accommodates people walking, biking, and access to the NE 85th Street Station pick-up and dropoff.



90th Street (I-405 to 122nd Avenue NE) Shared Use Path / Possible Boardwalk

Source: Fehr and Peers



NE 90th Street Corridor

Between I-405 and 122nd Avenue NE, build a shareduse path or boardwalk on the north side of the street. Between 122nd and 128th Avenue NE, provide buffered bike lanes and sidewalks with landscape strips on both sides of the street.





Source: Fehr and Peers

124th Avenue NE Widening and Protected Bike Lanes

Widen 124th Avenue NE to five lanes plus physically separated bike lanes from NE 85th Street through the NE 90th Street intersection. This project also includes continuation of protected bike lanes south through the NE 85th St intersection to NE 84th Lane to connect to exiting bike lanes.



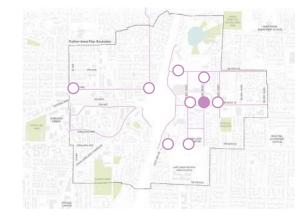
210



Source: NACTO, Urban Street Design Guide

NE 85th Improvements: I-405 to 128th Avenue NE

To offer a high-quality experience for people walking, rolling, and making last-mile connections by bike, enhance NE 85th Street between I-405 and 124th Avenue NE. Recommended treatments include grade-separated active transportation zones on both sides of the street that include one-way raised bike lanes, sidewalks, protected intersections and amenity zones.

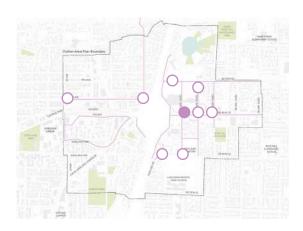




Source: Fehr and Peers

NE 85th Street and 120th Avenue NE Improvements

As part of the overall enhancement to the NE 85th Street corridor to better accommodate all travel modes, multiple concepts were studied. This preferred concept direction improves the NE 120th Avenue intersection to include an added eastbound lane as storage capacity from the interchange, and added northbound left turn lane to accommodate expected traffic volume increases, a bump out of the northwest corner to clarify operations for two westbound incoming lanes and reduce the north/south crossing distance, high- visibility crosswalks, shared use paths to the west connecting to the Stride BRT stations, and raised protected bike lane and wide sidewalks to the east. Project may include additional EB right turn lane.



Utilities &
Public Services —

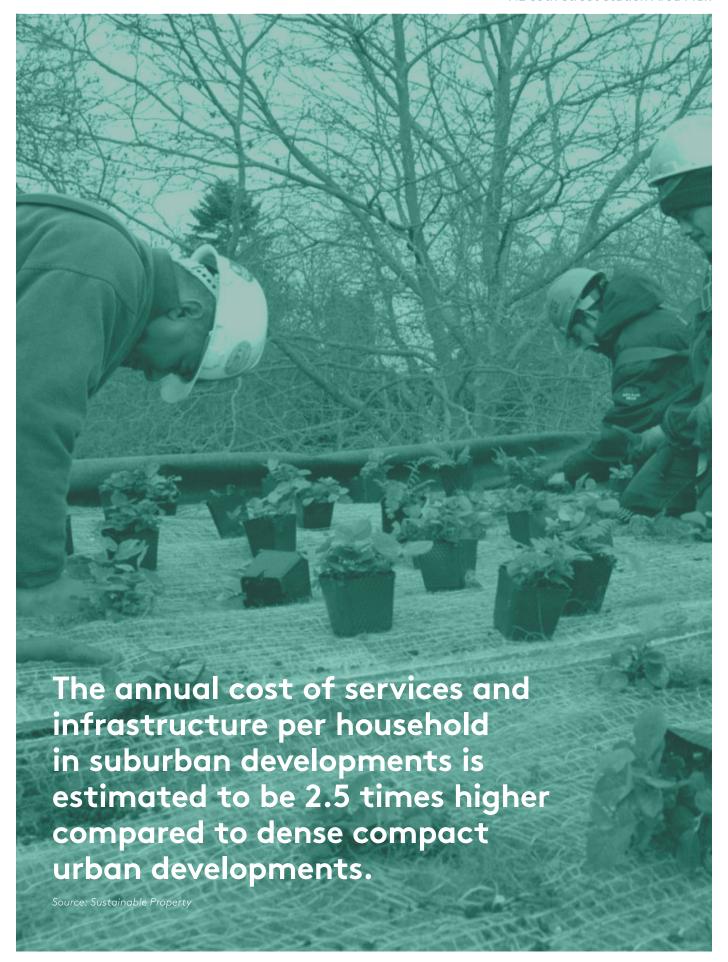
Utilities & Public Service Concept & Goals

Overall, the approach to infrastructure and public services improvements should take a holistic view of all the potential improvements and seek efficiencies through multi-benefit strategies, or timing projects to be bundled together and reduce construction needs.

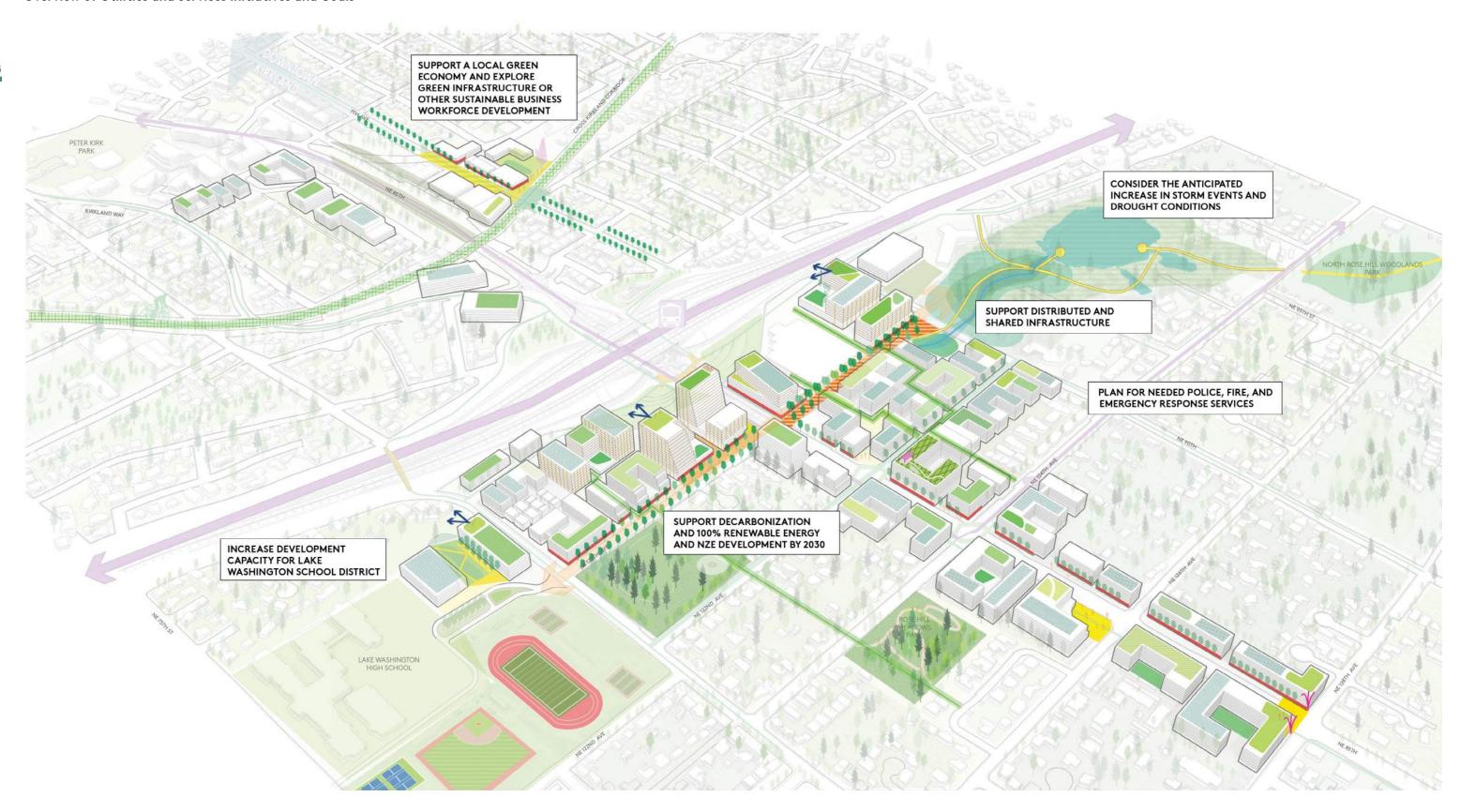
Prioritize Multi-Benefit Strategies: To maximize investment and community benefit, multi-benefit strategies that achieve multiple goals through one intervention should be prioritized. For example, green infrastructure and planting can provide tree canopy/air quality benefit, bioswales to provide stormwater benefit, increases habitat or biodiversity, improves human mental and physical health, and provides resiliency to climate change. It should be noted that water plays into Ecosystem / Green Infrastructure, Energy due to energy needed to deliver water, and Building Performance.

Regional Stormwater facilities provide opportunities to reduce impact on redevelopment parcels and can be coupled with other projects to contribute to other watershed goals like wetland and stream buffer restoration.

Promote innovative stormwater strategies that respond to specific watershed conditions and enhance urban ecological function.



Overview of Utilities and Services Initiatives and Goals



Stormwater Infrastructure

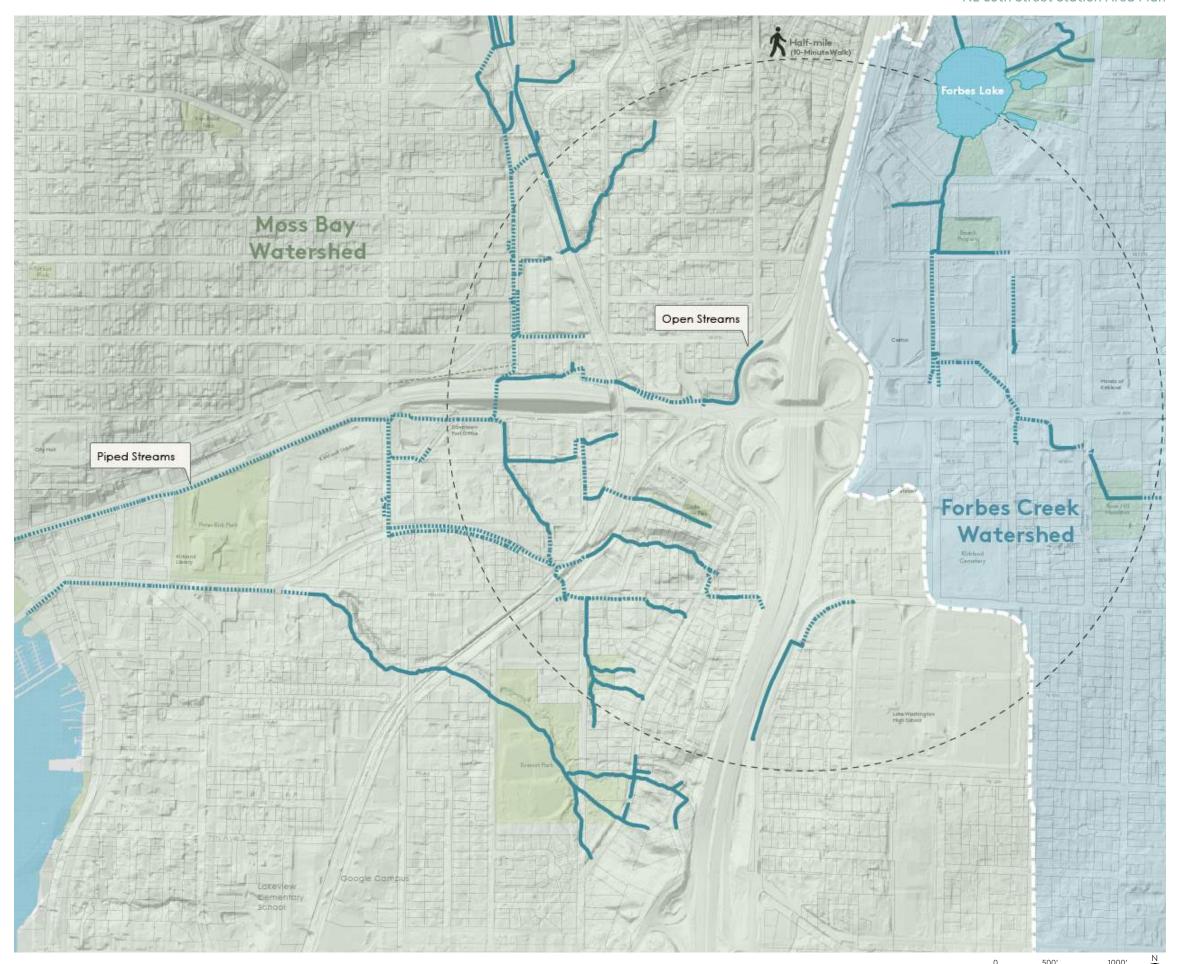
The City of Kirkland has a track record of innovative stormwater management and aquatic resource protection. The opportunities to further promote innovative stormwater strategies for future development look at possibilities to reduce the stormwater management burden (e.g. facility cost, space required) for redevelopment projects within the subarea, while protecting the natural environment and the City's stormwater infrastructure. The opportunities are strongly influenced by the environmental conditions and regulatory requirements within the two primary stream basins of the subarea, the Moss Bay Basin and the Forbes Creek Basin.

Moss Bay Stormwater Opportunities:

Development and redevelopment projects within these stream-discharge areas are required to comply with stringent flow control requirements, which necessitate large detention facilities to protect the stream channels from the damaging effects of high flow; however, there is no viable fish habitat mapped in this area. Downstream of these open stream channels, the City may allow smaller detention facilities if it can be demonstrated that the downstream stormwater conveyance infrastructure is adequate to handle the existing flows.

Forbes Creek Stormwater Opportunities:

Forbes Creek is a salmon-bearing stream and is identified as priority habitat. This basin also includes a large area that discharges to Forbes Lake, which requires that projects in the basin to utilize water quality practices that provide phosphorus treatment. The primary opportunity in the Forbes Creek basin to reduce the stormwater management burden for redevelopment projects is to meet those stormwater requirements at a different site, such as through regional stormwater facilities constructed by the City prior to redevelopment. Development of the Forbes Lake Park concept could also contribute to wetland and stream buffer restoration to enhance function.



Distributed / Shared Infrastructure

To increase resilience and flexibility, prioritize a more distributed, multi-source approach to infrastructure that is less vulnerable to risk from disruptions and allows for changes over time. Support the shift from centralized large-scale infrastructure, such as centralized energy or stormwater treatment plants, to networks of smaller scale facilities that can be interconnected and shared; also recognizing that this is likely to be a mid- to long-term process.

There is also an opportunity to explore the concept of a Blue Green Corridor, which can be designed to achieve a broad range of goals for placemaking, stormwater management and quality, and urban ecology and therefore can range from an open vegetated stream channel to a series of at grade bioretention cells, to water and ecology themed art installations and specialty paving, to trees and other plantings all of which can be paired with below grade traditional grey infrastructure (i.e., vaults and pipes).

Water and Sewer

Increased growth in the Station Area will mean an increased consumption of water from the regional supply and increased sewage production requiring treatment. The City is planning for needed water and sewer improvements beyond the current capital improvement planning within the Water System Plan, Water CIP Update, and General Sewer Plan. These will include upgrades and replacement of existing pipes, that will help support improvements to fire flow requirements in the water system, and improvements to address increased flow in the sewer system. The overall plan goals and policies also support a more efficient, high performance approach to water use than represented in conventional demand models. See the Green Innovation Strategies for more information. Goals and Principles include: Goals and Principles include:



Reduce Demands

Developments can incorporate efficiency measures through their systems and fixture selection, as well as operations. The Green Innovation Strategies incorporate the standard of reducing water use in buildings by 10% by 2025 and 20% by 2030 as compared to a 2019 baseline. Reduced water demands will also reduce energy needs to convey the water.

Increased water and sewer demands will require replacement and improvements to existing infrastructure.

Green Innovation strategies promote a more efficient approach to water use within buildings which will reduce potable water demands.

Use Potable Water for Potable Needs

Today, it is common practice to use potable water for all water needs, including uses such as irrigation that do not necessitate a potable water treatment standard. By using recycled water sources, such as cleaned stormwater for irrigation, the demand for potable water is reduced and we will use less water from our streams and groundwater basins. This principle will support a healthy ecosystem and habitat, and in particular, stream health within the Moss Bay watershed. While there are some regulatory barriers that exist today, recycling water on-site or in larger, district facilities is anticipated to become more common during this plan horizon, and should not be precluded. Future proofing strategies include developments with dual plumbing to allow for purple pipe connections in the future. These strategies are encouraged by third-party protocols like the Living Building Challenge.

A next step should be to study climate change impacts to sewer and stormwater / storm events and follow up planning.

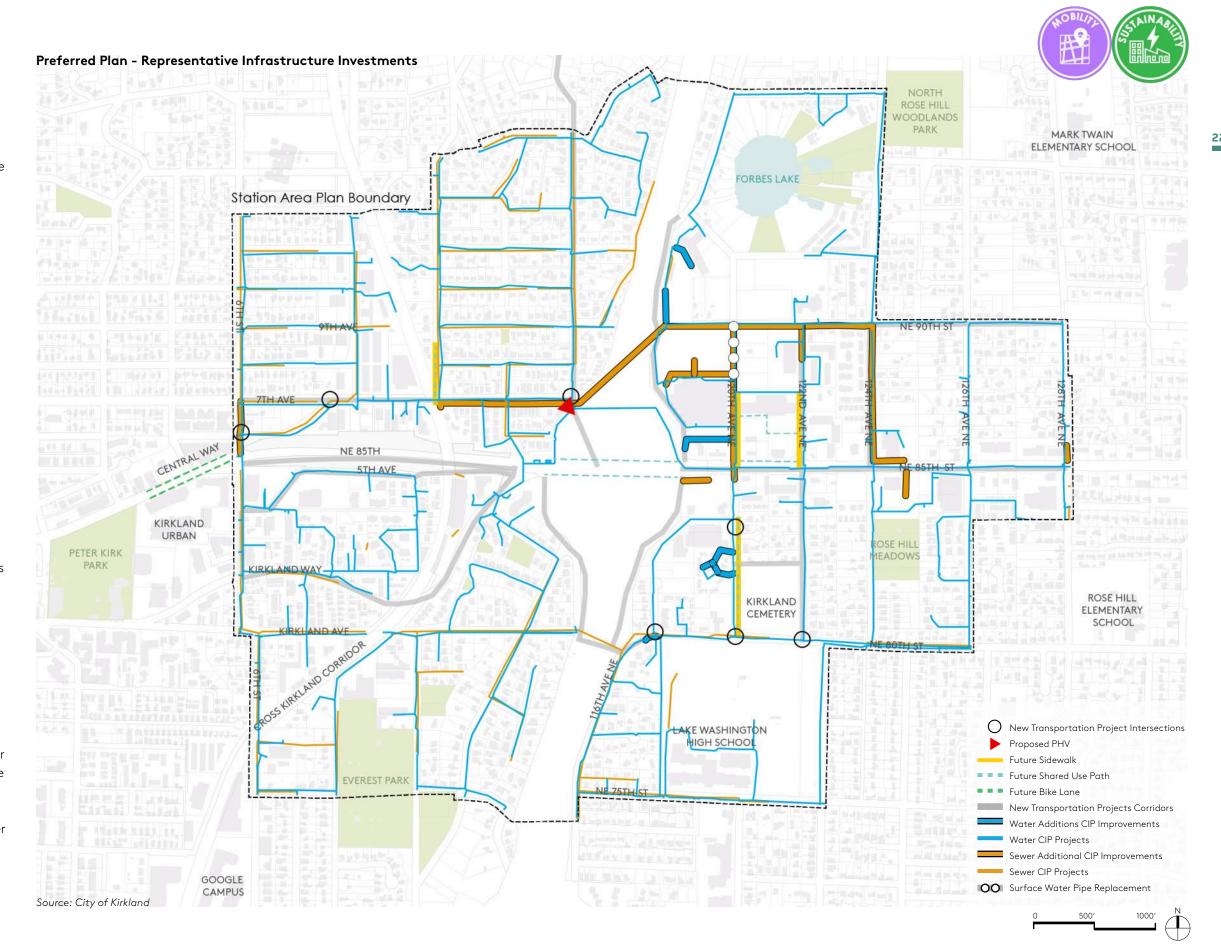
Water use reduction is supported through the prioritization of using recycled water sources for non-potable water use needs

City services like Fire, Police, and Emergency Services will be increased to align with population growth.

Representative Projects

Planning level studies completed for the Fiscal Impacts and Community Benefits Analysis (2021) determined a set of representative infrastructure investments needed to maintain service levels in water, sewer, and stormwater given the planned household and employment growth for the station area. A full list is available in the Appendix 10.2, Project List.

- Notable water and sewer improvements needed include a water main under I-405 as required by WSDOT due to construction of the BRT station, as well as a sewer capacity project that crosses under I-405 to connect the King County transmission line under Cross Kirkland Corridor.
- Within the representative infrastructure improvements, the only recommended stormwater project within the Study Area consists of replacing 520 feet of pipe along 120th Ave NE with a smoother pipe material to increase conveyance capacity.



Sustainability
Framework—

Background and Context

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The purpose of this Sustainability Framework is to advance the City's objectives and Sustainability Master Plan with the Station Area as a demonstration district that maximizes opportunity for innovation and community benefit around climate action, resilience, and quality of life.

This Framework is aimed to complement the Station Area Plan and envisions a 'future-ready' district that is responsive to quickly changing climate conditions, that takes advantage of the scale and unique opportunities of a mixed-use, transit-oriented district, and that recognizes the pace of market transformation and does not preclude future innovations.

Climate conditions are changing quickly and are anticipated to have wide-ranging effects on our region

by this plan's horizon of 2044. The future climate implications for Kirkland and the station area include:

- Heavier and more frequent storms and rain events, resulting in flooding
- Drought and regional decline in snow and ice in Cascades and Olympic mountains, resulting in irrigation and water shortages
- Sea level rise and ocean chemistry change in ways that are harmful to local marine species like shellfish and salmon
- Temperature ranges, increased extreme heat days, high smoke events due to an increase in regional wildfires
- Increased potential for cardiovascular illness due to heat or for vector-borne diseases
- Increased potential for food availability and affordability impacts from heat, drought, and pests

Being along a major highway corridor places the Station Area at higher environmental exposure for GHG emissions, resulting in poorer air quality and noise impacts experienced today. While the Plan includes land use strategies to buffer and mitigate these current impacts, the highways and high level of paving and impervious surface in the Station Area do reduce the community's capacity for resilience looking forward, by increasing flood and heat island risks, by forming barriers for people to get to essential services, and by creating gaps in habitat and stream corridors and reducing ecosystem performance.

How can we increase community resilience?

The adopted Preferred Plan supports growth with an increasing mix in land uses and transit-oriented development, along with improved biking and walking connections and an enhanced open space network. With the planned growth, there will also be an increased demand for resources including energy, water, and open space among others.

However, a more compact, urban development pattern affords the potential to improve upon community resilience as a part of this planned growth, with strategies including shared resources, a more distributed, flexible approach to infrastructure, and enhancing ecosystem performance.

Projected Impacts of Climate Change

Projected changes in very hot days, snowpack, and streamflow in Washington State with up to 5.4°F of warming globally. This amount of warming is currently expected as soon as the 2060s (2050–2079) under a high GHG emission scenario.

Higher amounts of warming are possible (up to 8.6°F globally) by 2100 under the high GHG scenario. Changes in hot days are relative to 1976–2005; all others are relative to 1970–1999.





Change with 5.4°F (3.0°C)

Risks

- Heat-related illness and deaths
- Warmer streams stressing salmon
- More frequent harmful algal blooms

- Reduced snowpack (April 1st snow water equivalent)
- **↓** 38%
- - **↓**70%
 - % · Irrig
- Reduced water storage
 Irrigation shortages
 - Winter and summer recreation losses

 - ↑16%
- River flooding
 Costly stormwater management and flood protection
- Negative effects on salmon populations

Lower summer streamflow (April-September)



- ↓ 44%
- Reduced summer hydropower
- Challenges to water supplies
- Negative effects on salmon populations

Adapted from UW Climate Impacts Group (Snover et al. 2019)7

Higher winter

streamflow

(October-March)

Source: 2020 Strategic Climate Action Plan, King County

Essential Services and Resources, Environmental Exposure and Access Gaps LEGEND Station Area Plan Boundary BRT Station COMMUNITY RESILIENCE O Grocery Stores Pharmacies D Public Gathering Spaces PARKS AND MOBILITY Cross Kirkland Corrido BRT Station JOBS AND HOUSING EQUITY Workers Earning <\$3,333/ma Source: lehd.ces.census.gov • 1-25 • 26 - 50 • 51 - 100 101 - 1631 O Affordable Housing Assisted Living Facilities AIR QUALITY AND NOISE Principal Arterials

Many sustainability co-benefits will accrue through the fundamentals of these smart growth concepts represented in the Station Area Plan – particularly in the areas of syncing land use, transportation, and open space together. A crosswalk indicating alignment between projects and Sustainability Master Plan goals is in the Appendix.

Some examples of strategies already embedded in the plan that will support Sustainability benefits include:

Jobs and Housing Opportunities –

Currently, Kirkland has significantly more housing than jobs, and many people who work in Kirkland cannot afford to live here. This jobs / housing imbalance creates both sustainability and resiliency challenges. The large number of commuters increases VMT, and the lack of affordable housing makes it difficult for essential workers to reach their jobs. The proposed zoning amendments in the Station Area Plan will help address the citywide jobs/ housing imbalance and can reduce the need for commuting.

Mobility and Active Transportation -

The planned mobility and active transportation projects and programs will be essential to achieving VMT reduction and climate goals. These include a suite of actions including access to the BRT station, multimodal streets, transportation demand management strategies, and intersection improvements.

NE 120th Main Street -

120th is an important, pedestrian friendly main street for the Station Area with active ground floors and is also envisioned as a green street with plantings which could serve as a habitat corridor and stormwater management feature. These improvements help to strengthen bike and pedestrian connections between Lake Washington High School and Forbes Lake, a valuable open space asset to leverage for ecological and community benefit.

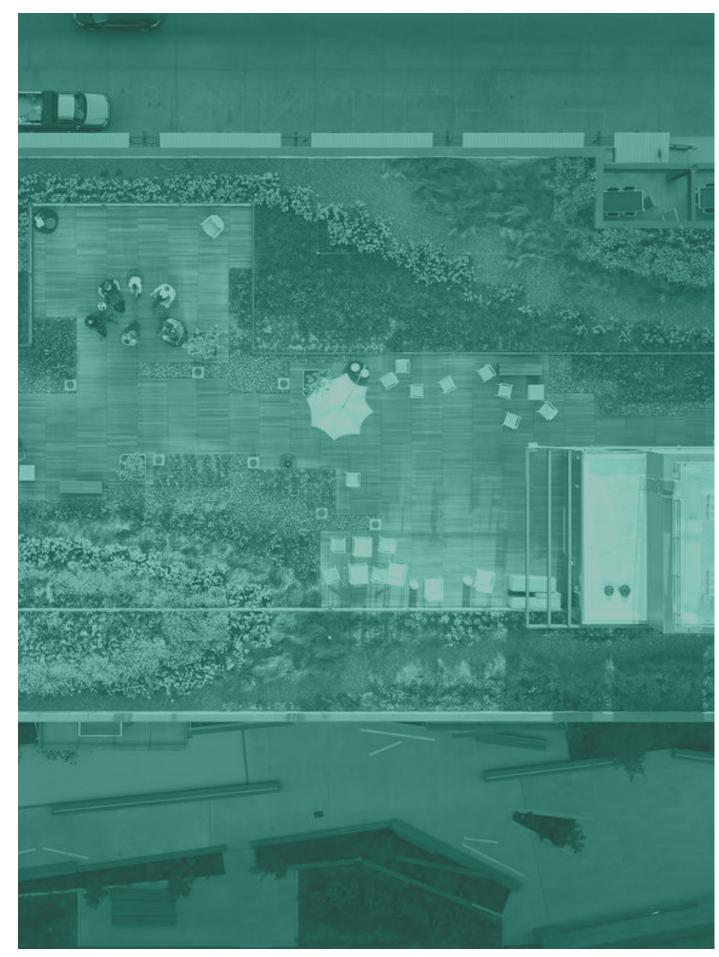
Green mid-block connections -

These mid-block easements are envisioned to help break down large blocks and parcels to a more pedestrian friendly scale. They provide valuable opportunities for stormwater conveyance and treatment and could also provide opportunities for public private partnerships that would allow the city to treat stormwater from the public ROW on private land.

Forbes Lake Park -

Forbes Lake is an important existing open space and habitat asset. Investments including an enhanced wetland buffers could help address phosphorous levels in this salmon bearing water body. A proposed boardwalk and potential acquisitions could expand open space access in this area.

Sustainability cobenefits will accrue through smart growth concepts-particularly in the areas of syncing land use, transportation, and open space together.



Sustainability Framework Goals and **Principles**

To address anticipated climate changes and increased demands for the Station Area, this Sustainability Framework includes all the Sustainability Master Plan (SMP) goals informed by the community (see inset) and establishes a set of goals and principles to maximize community benefit, including sustainability measures, for Kirkland's existing residents and employees and new members of the community. Like the SMP, the High Performance Building Standards described in KZC 115.62 outline key implementation strategies and actions for development projects to readily tackle these goals.

Sustainability Master Plan (SMP) goals

Sustainability Master Plan Key Recommendations

garnered the most support and excitement in the community:

Energy Supply and Emissions

It is imperative that the energy the community uses is renewable and consistently gets cleaner until it is free from all pollutants. This can be achieved by sourcing electricity that is not produced by combustion of fossil fuels. On a global scale, this conversion should be done to the maximum extent possible by 2030 to avoid the worst impact from Climate Change as the world works towards achieving zero community greenhouse gas

- Secure carbon-free electricity for the community
 Reduce the use of natural gas in buildings and

Buildings and Infrastructure

Buildings and related infrastructure not only use a great deal of natural and human made materials, but their construction and operation are responsible for over one third of the community's GHG emissions. Since water is a precious and essential resource, we should ensure we don't use more than required as it is also being impacted by climate change.

- energy use zero-emission structures
- Retrofit existing buildings to reduce energy use
- Incentivize construction of high-performing, low
 Increase water efficiency in all buildings and

Land Use and Transportation

Transportation alone accounts for about half of Kirkland's community greenhouse gas emissions. Efficient land use and transportation patterns can be optimized to use the land we have more efficiently, and to help the community improve air quality, reduce congestion by driving less, and utilize many cleaner transportation options such as biking, walking, transit use and carpooling.

- planning practices and codes
- Reduce the average amount each person drives by

 Grow the annual number of weekday transit riders 20% by 2030 and 50% by 2050
- Employ Smart Growth principles in all City Ensure that people of all ages and abilities can comfortably get around by walking or bicycling

Matural Environment and Ecosystems

Air, water, land, plants and animals and the entire ecosystem that supports them are vital to human health and contribute immensely to the community's quality of life.

- Protect and enhance the water quality of Kirkland's streams, lakes and wetlands
- With the community's help, restore at least 500
 Meet the overall goal of citywide 40% tree canopy acres of City-owned natural areas and open space cover goal by 2026
- Eliminate the discretionary use of synthetic pesticides in parks by 2025
- . Make sure that all residents can walk to a park or
- Manage Kirkland's urban forest resource for optimal health, climate resiliency and social equity

Sustainable Material Management

Reducing consumption and waste by reusing materials and fixing items instead of replacing or discarding them helps us transition to a system where everything is reused or recycled.

- Achieve zero waste by 2030
- · Reuse material and recycle the rest
- Support product stewardship

Sustainable Governance

Responsible governance helps foster decisions that are good for the environment, social equity, and the

- Integrate sustainability into every major decision
 Ensure processes for public participation are fair,
- Coordinate sustainability programs and policies
 Build community resiliency across all City departments
- - Maintain the City's responsible fiscal practices

Sustainable Business Local businesses, both small and large, contribute extensively to the livelihood of the community and

enhance Kirkland's sense of place. The city can assist businesses to become more sustainable and help rebuild the local economy through local and regional partnerships. Provide personalized environmental technical
 Develop a diversified, equitable and resilient local

- green economy

Healthy Community

Communities that have access to the necessities of life such as food, water, housing, jobs and opportunities are happier and healthier. It is important for all members of the community to feel they belong and that their city is equitable and socially just.

- Double the number of P-Patches or other
- Reduce how much potable water each person in
- . Help refugees and immigrants, people of color and economically struggling residents access the
 • Expand housing options for all income levels resources they need to thrive
- community gardens by 2025, and again by 2030 become engaged, competent and responsible members of the community
- Kirkland uses by 10% by 2025 and 20% by 2030 Make Kirkland a safe, inclusive, and welcoming

 - Provide more recreation facilities.

Goals

In support of the project objectives of an inclusive district that supports community benefits and quality of life, and the Council- and community-identified priority innovation areas of Ecosystems / Green Infrastructure and Energy / Decarbonization, the following goals have been developed. Opportunities around these goals are explored further in the following frameworks.

- Support a 'future-ready' district that is more resilient to the impacts of climate change, to ensure that future innovations are not precluded, and to recognize the pace of market transformation
- Lead the way on realizing sustainability master plan goals through public projects and services in the Station Area
- Prioritize green infrastructure to improve resilience, air and water quality, shade and cooling, habitat and ecological function, as well as human health
- Support community health and emergency preparedness
- Direct incentives towards efforts that support social resilience including energy justice and equitable distribution of sustainability improvements, and/or towards efforts that achieve multiple benefits
- Support partnerships and opportunities within the Station Area for developments to plug into shared / distributed infrastructure, especially reused water and community energy systems, and to support the ecosystem performance and resilience through beyond the site contributions to tree canopy and steam health
- Support High Performance Buildings to achieve emissions, energy, materials, and water targets
- Support multi-benefit ecosystem and habitat improvements, reduce impervious surfaces, and address gaps [with the Green Factor Code]





NE 85th Station Area Ecological Framework

Subarea Context and Priorities

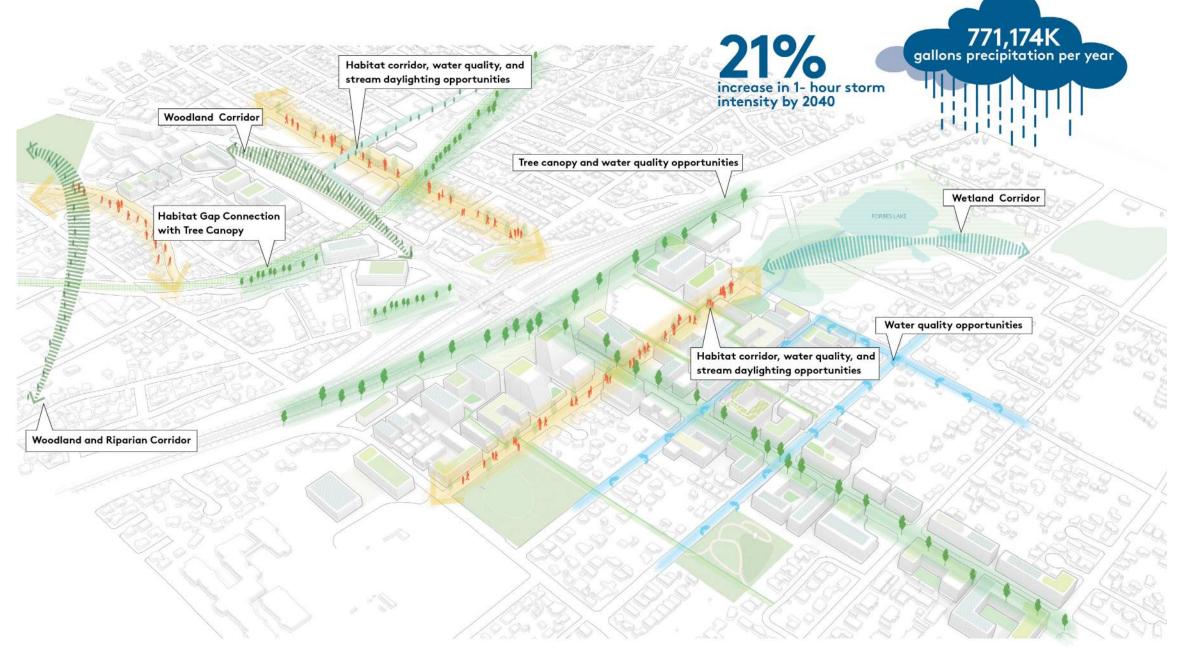
There is an urgency to address anticipated climate changes including more frequent storms and flooding; drought and water shortages; negative impacts to salmon; and increased extreme heat days and food availability. Progress can be made through project and site-level interventions, but by definition, cooperation is needed for system-wide improvements to ecosystem health and functioning.

The subarea has glacial geology with kettles and moraines and includes substantial rolling hills and topography. It is comprised of two watersheds: the Forbes Creek watershed and the Moss Bay watershed. The Forbes Creek watershed is a salmon bearing habitat. It also includes dense areas of existing vegetation interspersed through neighborhoods.

This vegetation primarily exists in an urban matrix consisting of both patches and disconnected habitat corridors. These patches and corridors are made up of layered vegetation including tree canopy and understory planting which supports structural habitat that provides for food, forage, and shelter for mammals, birds, and insects. Three of these are of particular significance: a woodland corridor at NE 85th St between 6th St and NE 114th Ave, a riparian corridor that includes Everest Park, and the wetlands and associated lands surrounding Forbes Lake.

To support the goals of enhancing urban ecology, biological diversity, and tree canopy within the station area, existing patches and corridors should be protected, while filling in the gaps between them.

Ecology and Green Infrastructure Opportunities Framework



Source: Mithun, Herrera

Prioritizing Ecosystem and Green Infrastructure Strategies **Multiple Benefits**

A guiding principle for the ecosystem and green infrastructure strategies prioritized here is that they create multiple benefits across ecosystem functions

such as: improving mental and physical health; cleaning water and air; increasing biodiversity; and providing resiliency to the impacts of urbanization and climate change impacts, including increased frequency and intensity of rainfall and warmer temperatures.

Resilient, Distributed Green Infrastructure

The recommended green infrastructure strategies are informed by a distributed systems approach to infrastructure and utilities that moves from large, centralized stormwater facilities to smaller scale facilities that are distributed throughout the area and, when they are interconnected, has been shown to increase resiliency. Resiliency is the ability to respond to chronic or sudden stressors, such as significant rain, flooding, or heat events. Successful green stormwater infrastructure projects use a mixture of regional facilities and distributed stormwater features to provide multiple benefits including stormwater conveyance, treatment and adding significant value to the urban habitat, as well as to the pedestrian realm, through green streets.

Connected and Living Systems

To support citywide goals around tree canopy and habitat, this framework builds on Kirkland's existing urban forestry plan and utilizes a Green Factor criterion to incentivize integrated green infrastructure project contributions at the site scale, leveraging new buildings, sites, frontages, open spaces, and streets.

Opportunities to support broader ecosystem and habitat function beyond the site scale are very important for living, resilient systems. Existing stormwater regulations and standards offer a strong foundation to support ecosystems; however, there are gaps that can reduce participation of developments.

There is an opportunity to support more stringent water quality standards and biodiversity by considering amending infeasibility criteria and providing other incentives, that would also anticipate future regulations addressing water quality pollutants (such as metals, 6PPD quinone, and phosphorus) and permit drivers to retrofit existing development.

"Beyond the Site" opportunities include a range of strategies and innovations that should not be precluded, and are illustrated in the Ecosystem Opportunities Framework:

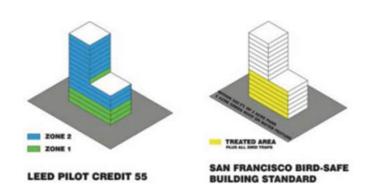
- Contribute to in-watershed habitat connectivity, tree canopy, and stream health goals beyond the site boundary
- To address flooding, reduce impervious surfaces, treat stormwater from the public right-of-way on the project site, or contribute to a district green infrastructure project
- To support ecosystem health, provide enhanced stormwater treatment for water quality pollutants including metals, 6PPD Quinone, and phosphorus, with a priority on the Forbes Creek watershed; and support stream health including daylighting of piped portions with a priority on the Moss Bay
- To support urban habitat, consider design and management practices that provide dark sky environments and bird-safe construction, and adaptive management of landscapes
- To reduce potable water needs and address droughts, contribute to water use efficiencies, and include rainwater capture, harvesting, reuse, and on-site treatment

Stretch strategies for additional consideration include shared and distributed systems, like blue streets or purple pipes, and should be studied further. Some areas

should be further explored by City departments and in collaboration with partner organizations or local utilities. For example, widespread adoption of water recycling could be facilitated by installation of district purple pipe as the city performs ongoing maintenance on public streets. There would need to be conversations with the City, King County, and water retailers regarding implications of this shift.



Bird Safe glass, Louisiana Children's Museum (Mithun)



Example applications of Bird Safe Design Standards



Stormwater management integrated into plaza, Liberty Bank Building (Mithun)



Woodland Park Zoomazium Green Roof (Mithun)

Source: Mithun, BUSS

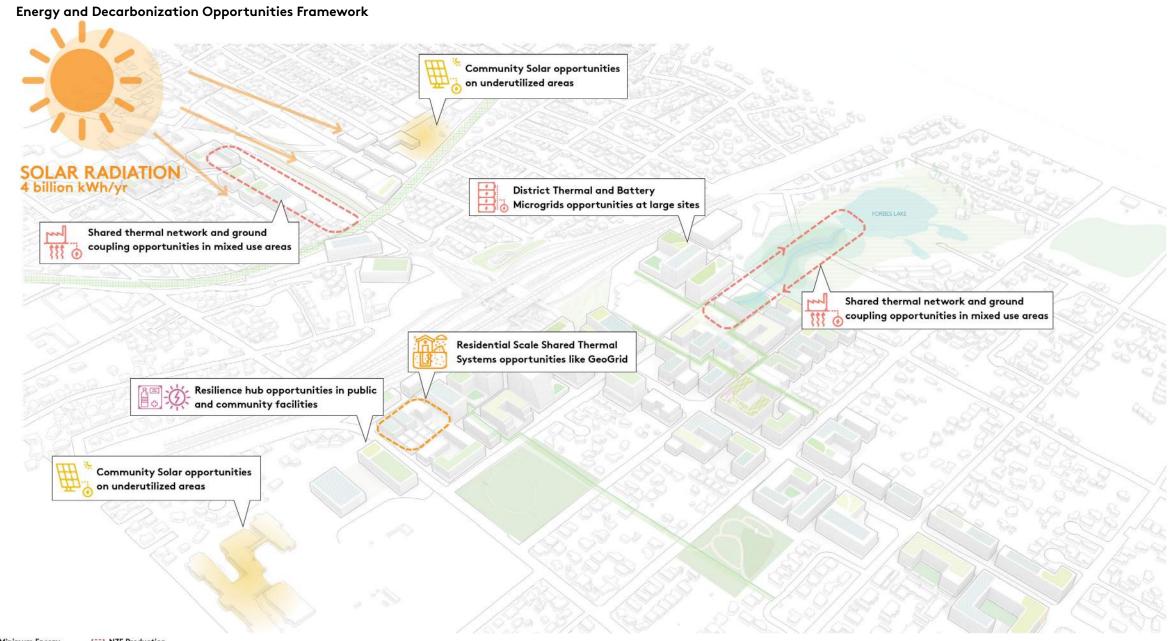
NE 85th Station Area Energy Framework

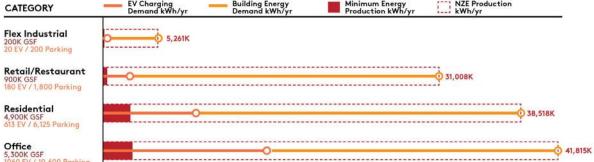
Subarea Context and Priorities

Energy use in the built environment is a major driver of climate change-related emissions. The concept of Embodied Carbon refers to emissions that occur during the manufacture, transport, construction, and operations of a building or facility. There is significant movement within the building industry towards decarbonization including construction and building materials, as well as building operation.

Regionally, the K4C King County Cities Climate Collaboration and Shift Zero advocacy alliance are examples of groups sharing technical, policy, and other expertise to scale up action. The building industry is well positioned for construction and building materials reductions, and tools like the Embodied Carbon in Construction Calculator (EC3), are widely known and used today. Similarly, our region is well positioned for operational reductions. The Washington State Energy Code (WSEC) is one of or the most aggressive in the country with respect to efficiencies, renewable energy production, and low-carbon systems.

Strategies should align with the recently approved 2021 WSEC, effective July 1, 2023, and the SMP target of 80% emissions reduction from baseline by 2050. These strategies should be revisited once the metrics of the WSEC are finalized, with an understanding that the WESC will require renewable energy production, efficiencies, and low-carbon technologies; and development will be moving towards all-electric energy and more electric vehicle charging.





Prioritizing Energy and Decarbonization Strategies

Addressing energy decarbonization in the built environment involves two linked approaches: lowering the demand for energy overall and investing in cleaner sources of energy. In both cases, actions should be taken at the individual building, multi-building, and district scales. As a mixed-use, transit-oriented community, there are ample opportunities to reduce energy demand.

Multiple Benefits

As with other strategies in this sustainability framework, multi-benefit solutions have been identified wherever possible. One example in this section is the opportunity for co-location of future energy production with resiliency hubs.

Sharing Resources

With a planned mix of development types, compact form, and anticipated street and public works improvements, the Station Area presents opportunities for shared energy and balancing loads. Different land and building uses tend to have differing energy use profiles, both in the typical amount of energy needed for operations and in the time of energy demand (called load).

Because of the Station Area's planned mixed of uses and relatively compact development pattern, there are unique opportunities to gain efficiencies and balance loads during different times of the day. There are opportunities to facilitate shared resources through partnerships and other models. District energy systems are being used today in Puget Sound by a variety of entities, including institutions like Seattle University or large organizations like SeaTac; and examples of public-private models exist in other places in the U.S. and Canada.

Multi-Source Approach

One of the major trends in energy today is a shift from high temperature, centralized generation plants to a more distributed, multi-source approach to generation, transmission, and storage of energy. The opportunity strategies reflect this shift in approach, while recognizing that this is likely to be a mid- to long-term process.

Building-scale decarbonization will be supported through High Performance Building Standards and third-party sustainability protocols that encourage developments to not only design, construct, and certify high performing buildings. Recognizing the imperative for decarbonization, baseline requirements will support energy efficiency, on-site renewable energy production (such as rooftop solar), and embodied carbon assessments. Baseline requirements will also include strategies that require low private investment but provide high public value and may function better with widespread adoption, such as planning for construction materials diversion.

Single-occupancy vehicle trips are a significant driver of emissions for the city. As a transit-oriented community, the Station Area will intrinsically have high potential for vehicle trip reduction and carbon reductions. This can be achieved through a combination of land use and urban design policies, together with active transportation improvements and demand management (TDM) strategies and programs. These actions and strategies are primarily addressed in other areas of the Station Area Plan and Implementing Codes; however, their sustainability co-benefits should be recognized.



"Beyond the Building" opportunities include a range of strategies and innovations that should not be precluded and could be facilitated as the market continues to move rapidly toward decarbonization. Some of these are illustrated in the Energy Opportunities Framework on the prior page:

- district thermal and battery mirogrids
- residential-scaled thermal networks
- community solar, energy storage and battery
- distributed, shared systems that move towards "5th Generation" systems that move away from centralized, high temperature plants to distributed, multi-source, more efficient energy systems
- Resilience Hubs -community-serving facilities augmented to support residents, coordinate communication, distribute resources, and reduce emissions

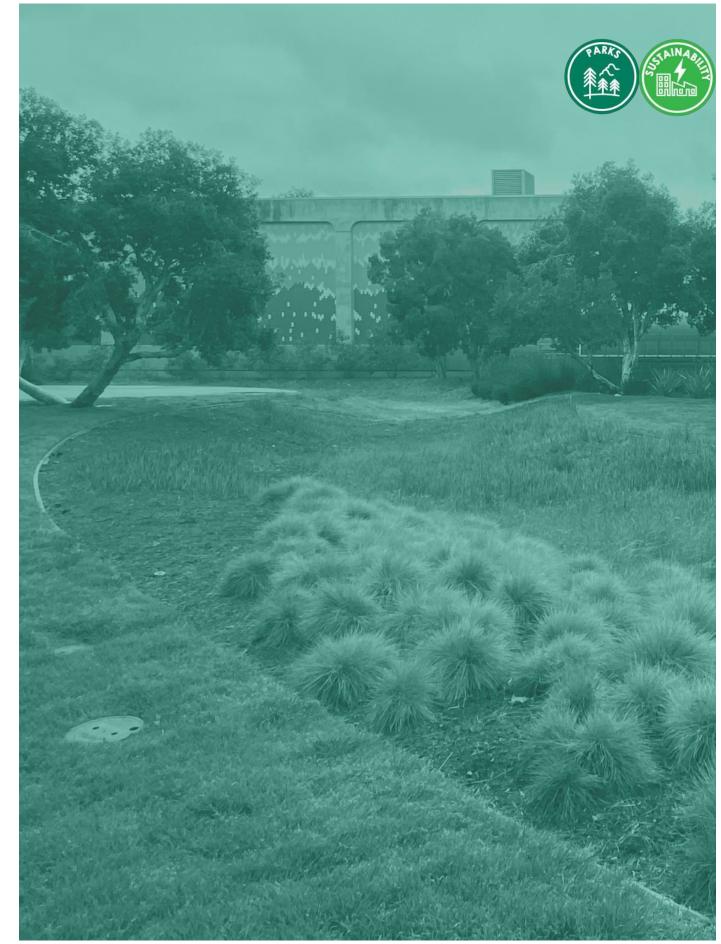
Stretch strategies for additional consideration include District and Shared Thermal and Low-Carbon systems. Additional technical guidance on how to contribute to district energy opportunities could help increase developer participation. This could take the form of a task force assembled by the city to provide technical support to developers considering district energy contributions, or the issuance of RFPs for partnerships on discrete strategies. When utility or street improvements are planned, it is an opportune time to evaluate the potential for installation of shared thermal system infrastructure components such as thermal storage, ambient loop systems, group coupling, and waste heat recovery including sewer heat recovery. The City and local utilities should also consider a study of the implications of requiring all electric buildings on the grid and a cohesive approach to facilitating their goals.



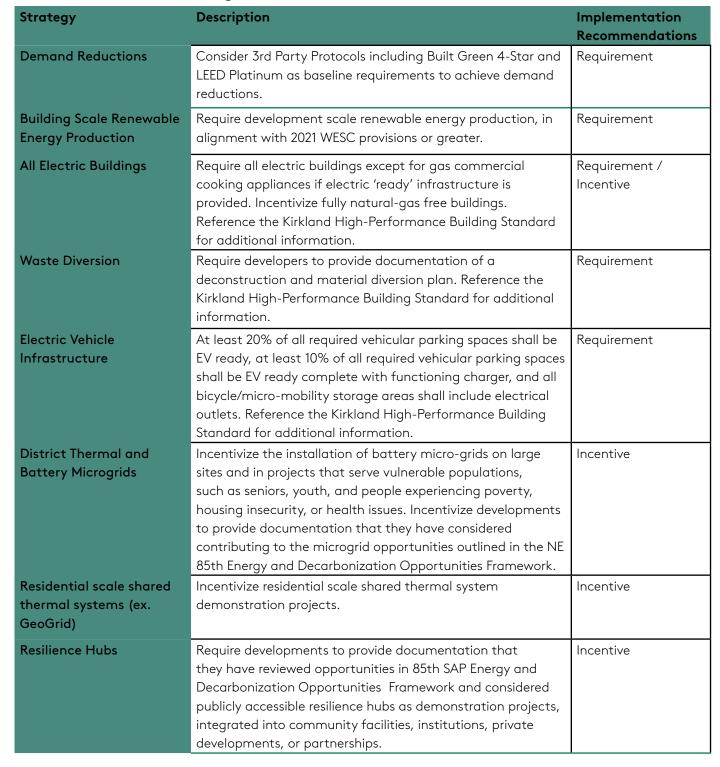
On-site renewable production at UC Irvine Mesa Court towers (Mithun)

Summary of Ecosystem and Green Infrastructure Strategies

Strategy	Description	Implementation Recommendations
Tree Canopy, Habitat Contributions, and Stream Health	Require developments to provide documentation that they have reviewed the NE 85th SAP Ecosystem and Green Infrastructure Opportunities Framework and encourage them to contribute to tree canopy, habitat 'patches' with similar habitat functions as adjacent properties or habitat 'corridors', and/or support stream health through daylighting piped portions with a priority on the Moss Bay watershed, to reconnect ecological corridors.	Incentive
Native, Drought Tolerant Species	Encourage planting primarily native of drought tolerant trees throughout the SAP, in addition to the existing tree retention-based code in KZC 95.	Requirement / Incentive
Bird Safe and Dark Sky Environment Standards	Require netting or screening to reflect glare on windows and prevent bird kills. Require the installation of fixtures that limit light leaving a building or a site or shining into the sky. Eliminating artificial light and sounds while few humans are present create a nighttime habitat and bird friendly environment.	Requirement
Food Production	Incentivize the provision of Pea Patches on roofs or on underutilized lots.	Incentive
Stormwater Management, Pesticide Reduction, Sediment Control	Require developments to adopt a long-term stormwater management plan, construction site management practices that control sediment, with the goal of achieving zero sediment runoff across the entire operation, and to submit a landscape plan that demonstrates a commitment to minimal pesticide and fertilizer inputs, if any, informed by Salmon Safe Standards.	Requirement
Water Use Management	Require water efficiencies and incentivize responsible water use including reduction, reuse, treatment and recycling, and treatment and reclamation. Do not preclude installation of or connection to purple pipe.	Incentive
Enhanced stormwater treatments for pollutants	To support ecosystem health, provide enhanced stormwater treatment for water quality pollutants including metals, 6PPD Quinone, and phosphorus (exceeding DOE's 50% reduction requirement) with a priority on the Forbes Creek watershed.	Incentive
Adaptive Management of Landscapes	Adaptive Management Plans developed with input from local ecologists and environmental specialists outline on-going landscape maintenance, organic management methods, and monitoring activity to support biodiversity, habitat, and ecosystem function, understanding the nature of their changing relationships.	Incentive
Adaptation Strategies	Encourage developments to assess regional climate change impacts on site design based on 50-year projections, and how these impacts can be reduced or eliminated through Site Climate Resiliency Planning, informed by Salmon Safe Standards.	Incentive



Summary of Energy and Decarbonization Strategies









Strategy	Description	Implementation Recommendations
Community Solar, Energy Storage, and Battery	Require on-site renewable energy production, or contribution to community solar within the grid area.	Requirement Scaling Option or Incentive
Low Carbon, 5th Generation District Thermal, including waste heat recovery, ambient loop systems, and ground coupling	Incentivize developments to provide documentation that they have reviewed opportunities in 85th SAP Energy and Decarbonization Opportunities Framework and considered District Thermal, including thermal storage, ambient loop systems, ground coupling, and waste heat recovery.	Incentive
Net Zero Energy (NZE) Buildings	Provide incentives for developers who achieve the International Living Futures Institute (IFLI) NZE certification. Potential partnership with PSE. Community solar will likely be needed for taller buildings to meet NZE.	Incentive
Embodied Carbon Assessment	Require developers to provide an Embodied Carbon Assessment (ECA) and set embodied carbon limits and reductions. Reference the Kirkland High-Performance Building Standard for additional information.	Requirement
Lifecycle Decarbonization	Incentivize developers to provide a Lifecycle Carbon Assessment (LCA) and achieve an established maximum carbon level. Review Design Guidelines, FBC, and Development Standards for their ability to promote or not preclude emerging technologies, such as Mass Timber, that achieve carbon reductions.	Incentive
Metered Energy Efficiency Transaction Structure	The City can explore MEETS (Metered Energy Efficiency Transaction Structure) and potentially do much of the early exploration legwork needed with the local utility.	Do not preclude
High Performance Building Envelopes	Allow a provision for departures from Design Guidelines, FBC, and Development Standards for their ability to promote or not preclude energy efficient design.	Do not preclude (process based)
Adaptation Strategies	Incentivize developers to provide documentation that they have assessed regional climate change impacts on site design based on 50-year projections, and conducted a hazard assessment. Actions are dependent on project, location, and hazard. May include: Relocation of critical systems Structural reinforcement Off-Grid renewables	Do not preclude/ Incentive

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